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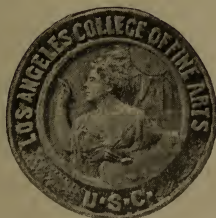
University of Southern California

BULLETIN

DEC 28 1920

College of Fine Arts

ELEVENTH
Y E A R



Season of 1910 and 1911

LOS ANGELES, CALIFORNIA

TAKE SOUTH PASADENA CARS TO AVENUE SIXTY-SIX

UNIVERSITY OF ILLINOIS

AUG 31 1915

PRESIDENT'S OFFICE



University of Southern California

College of
Fine Arts

Bulletin

E L E V E N T H
Y E A R

Season of 1910 and 1911



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1910/11-1924/25

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1917/18-1920/21

CALENDAR 1910-1911

September 12, 1910—Enrollment of students.

September 14, 1910—Commencement of class work.

Christmas vacation begins December 23, Friday.

Class work resumes January 2, Monday.

Examination in osteology and special branches last week in
January.

Second semester begins February 1, 1911.

Examinations in anatomy, art history, mythology and tech-
nic begin June 1, 1911.

Commencement, June 17, 1911.

Alumni reunion and banquet, June 17, 1911.

24

OUR PLAN

Another successful year has again demonstrated the wisdom of the new movement in placing the teaching of art on the same plan as the other learned professions.



There has long been a crying need for a standard of attainment which would fix the status of a graduate in art as clearly as that of a graduate in law or medicine. Our curriculum, as set forth in this bulletin, and the reputation which the College of Fine Arts has gained for thoroughness, are guarantees sufficient that our graduates are quali-

fied experts in their specialties, as capable in their work as college training can make them and needing only experience to place them in the front ranks of their profession.



The demand for our graduates to fill good positions and the general recognition of the high standard of this college are ample proofs of a public appreciation of a conscientious and a notable work.



There are, at present, in these western states many professorships and supervisorships waiting for competent and well trained teachers. There are opportunities in architectural drawing, in designing for glass, metal work and textiles, wood carving, jewelry, scene painting, etc.

Expert workers in these lines are always in demand, and many students learn these crafts as a convenient stepping stone to the study of fine art.

It should always be understood that thoroughness is essential to success everywhere. The lower ranks are always overcrowded in every line of endeavor.

ONLY THE BEST IS WORTH WHILE

OUR ADVANTAGES

In this friendly climate outdoor work is possible almost every day in the year. For this reason a large part of the lecture and recitation work, as well as painting and drawing, is done on the college grounds. The immediate surroundings of the school are exceedingly picturesque. The buildings overlook the famous Arroyo Seco, a treasure house of paintable subjects, with the San Gabriel valley and the white peaks of the Sierra Madre mountains closing the distance. There are seven large, well lighted and ventilated studios, picture gallery and lecture room, an art library with all the best art magazines and every possible convenience. The equipment for drawing, life study, modelling and the various art crafts is complete. The quality of the teaching staff is not excelled anywhere.



ART CRAFTS

The great change which has occurred in recent years in the social conditions of the masses and the awakening of the public mind to a keener appreciation of the things which



make for better living, demands a new departure in the teaching of art ideas and the practice of making beautiful things.

Art is no longer a rare and isolated thing for the enjoyment of the few. The aim of every artisan and of every

manufacturer nowadays is to turn out something beautiful which may add to the general enjoyment of life. So art is applied to everything that is made and there are a hundred artists busy now where there was one thirty years ago.



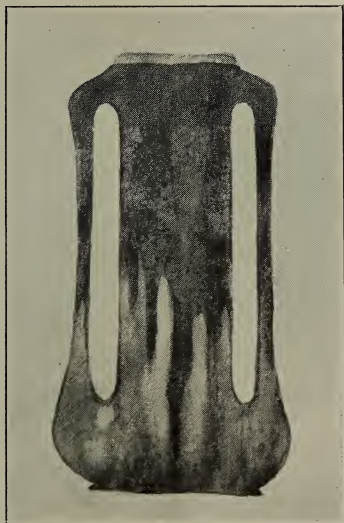
The aim of the art crafts is to make some useful thing beautiful, and the facilities are now such that every person who has the sense of beauty and a little finger ability may produce something both useful and beautiful; indeed, something worth while.



No occupation in the world so appeals to the average mind as the making of beautiful things.

The College of Fine Arts has a perfect equipment, a staff of expert teachers and every facility for the production of good results in all the crafts. An attractive feature of craft study is that pupils often produce work which values many times the cost of tuition.

Make your study practical for salary earning.



COURSES OF STUDY

Teachers' Course

Three Years

First Year.—Charcoal drawing from the cast, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year.—Drawing from life, portrait, draped and nude figure, composition, landscape, modelling, applied design, anatomy, water color, art history, sacred history, pottery and metal work.

Third Year.—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modelling, anatomy, design, art crafts in metal, wood and pottery, normal teaching course.

Architectural Course *Two Years*

First Year.—Same as teachers' course.

Second Year.—Building construction, plan drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

Design Course *Two Years*

First Year.—Free hand and mechanical drawing and original design.

Second Year.—Composition, color, harmony, original design.

Third Year.—Historic design, Interior Decorating, Applied design.



*Sculpture**Three Years*

First Year.—As in teachers' course.

Second Year.—Modelling from life, draped and nude, portrait, art history, mythology, anatomy.

Third Year.—Modelling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

*Degree Course**Four Years*

First, Second and Third Years.—As in teachers' course.

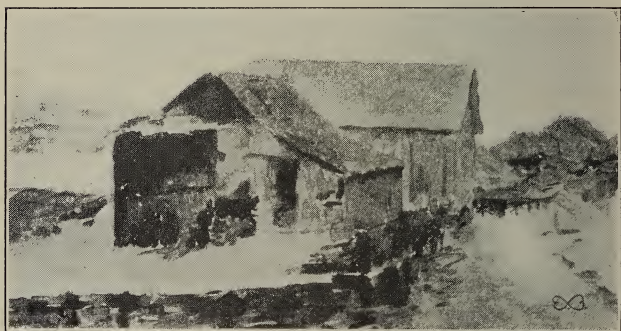
Fourth Year.—Specializing in water color or oil, life or landscape, etching, pastel painting and design, leading to the degree of Bachelor of Fine Arts.

SPECIAL BRANCHES

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.

ANATOMY

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.



ILLUSTRATING

This course embraces the technic of charcoal, pencil, pen and brush work, anatomy and the principles of design and composition.

DESIGNING

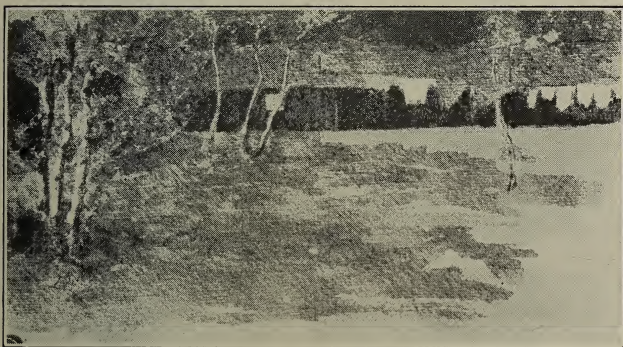
The course in design covers mechanical drawing, composition, the history of principles of ornament, color, harmony, the constructive requirements of fabrics, glass work, fictile products, metal work, etc.

METAL WORK—BRASS AND IRON

Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enamelling.

JEWELRY

This course includes wire and band work, casting, chasing, jewel setting, enamelling and design.



NORMAL ART COURSE

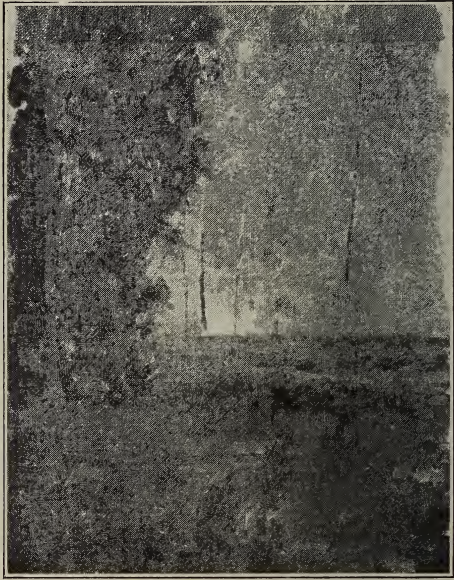
Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, potato printing, stencilling, cardboard modelling, colored chalks, harmony, design, etc.

WOOD CARVING

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.

ART GLASS

Art glass includes design, hard metal mounting, leading, cutting, color harmony, painting on glass and firing.



POTTERY

Pottery covers clay modelling, the potters' wheel, moulding, glazing, firing, underglaze painting, harmony and design.

INTERIOR DECORATING

Including drawing, design, color harmony, composition and the nature and uses of materials.

DIPLOMAS,

certificates and other honors are conferred by the University of Southern California, with which institution the College of Fine Arts is affiliated.

SPECIAL BRANCHES

may be taken separately from the course and certificates of proficiency will be granted on passing the required examinations.

CREDITS

for work done in other schools will be allowed when satisfactory proficiency is shown.

STUDENTS

in special branches may enter the school at any time.





AT THE COLLEGE OF LIBERAL ARTS

in the university building classes are conducted in mechanical drawing, perspective, machine drawing, architecture and freehand drawing.

LECTURES

There are three lectures per week on anatomy and other art subjects free to all enrolled students.

FREQUENT COMPETITIONS

are open to advanced students, entitling the winners to certain school privileges.

A GOLD MEDAL

is each year given to the student of any grade making the best record.

A SCHOLARSHIP

for one year given to the graduate making the best record.

FEES (*All day lessons*)

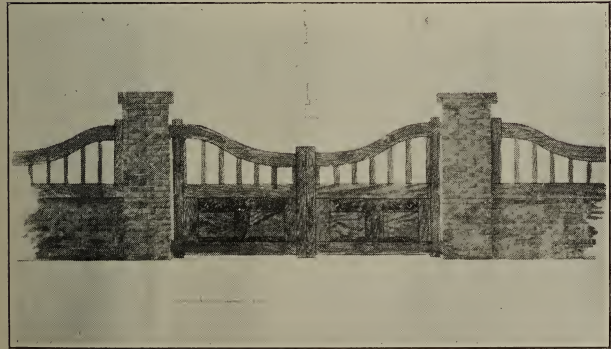
6 Days per week.....	\$12.00	per month
3 Days per week.....	6.50	per month
1 Day per week.....	3.50	per month
Single Lessons each.....	1.00	
Full Collegiate Year.....	85.00	
Per Semester	45.00	
To post graduates, per year.....	25.00	
Graduation fee	5.00	

No charge is made for models, lockers, boards, easels, etc. Materials are furnished to students at wholesale rates.

All fees payable in advance.

Class hours: 9 a.m. to 12 m. 1 p.m. to 4 p.m.

Idleness and Discontent are twins.





FACULTY

W. L. Judson, Dean

Prof. Arley G. Tottenham

Prof. Nell Danely Brooker, Design

Prof. Elizabeth Waggoner, Metal, Leather

Asst. Prof. Marguerite Vignes, Art History

Asst. Prof. Roberta Barton, Mythology

Asst. Prof. Ina Thorne, Anatomy

Asst. Prof. Agnes Peterson, Sacred History

Asst. Prof. Emma Bridges, Pottery

Asst. Prof. Olive Pestor, Drawing

EXAMINERS

Prof. Arley G. Tottenham

John W. Nichols

The school dormitories are equipped with every comfort and convenience, including facilities for light house-keeping.

Board and lodging may be had near the school at reasonable rates.

THE UNIVERSITY

The University of Southern California includes the following colleges, each of which has a distinct faculty of instruction:

COLLEGE OF LIBERAL ARTS—35th St. and Wesley Ave.
George F. Bovard, A.M., D.D., LL.D., President
Roy E. Schulz, A.B., Secretary.

COLLEGE OF PHYSICIANS AND SURGEONS—516 East Washington St.

Charles W. Bryson, A.B., M.D., Dean.
Walter S. Johnson, A.B., M.D., Secretary.

COLLEGE OF DENTISTRY—Fifth and Wall Streets.

Lewis E. Ford, D.D., Dean.
William Bebb, D.D.S., Secretary.



COLLEGE OF LAW—Exchange Bldg., Third and Hill Sts.
Frank M. Porter, A.B., LL.M., Dean.
Gavin W. Craig, LL.M., Secretary.

COLLEGE OF THEOLOGY—35th Place and Hoover St.
Ezra A. Healy, A.M., D.D., Dean
James Blackledge, A.M., Secretary.

COLLEGE OF PHARMACY—35th St. and Wesley Ave.
Walter T. Taylor, Ph.G., Dean.
Charles W. Hill, Ph.C., Secretary.

COLLEGE OF MUSIC—35th Street and Wesley Avenue.
Walter F. Skeeel, A.B., Dean.
Charles E. Pemberton, Secretary.

COLLEGE OF ORATORY—35th Street and Wesley Avenue.
Beulah Wright, Dean.
Gertrude Comstock, Ph.B., Secretary.

COLLEGE OF FINE ARTS—201 North Avenue 66.
William L. Judson, Dean.
Pearl Judson, Secretary.

A Preparatory school is maintained in connection with the College of Liberal Arts.

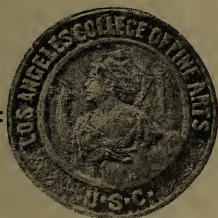
Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upon application to the addresses given above.



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University of Southern California College of Fine Arts BULLETIN

Twelfth Year
Season of 1911-1912



Los Angeles
South Pasadena Cars
to Avenue Sixty-Six

UNIVERSITY OF ILLINOIS LIBRARY
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UNIVERSITY OF ILLINOIS

AUG 31 1915

RESIDENT'S OFFICE

University of Southern California

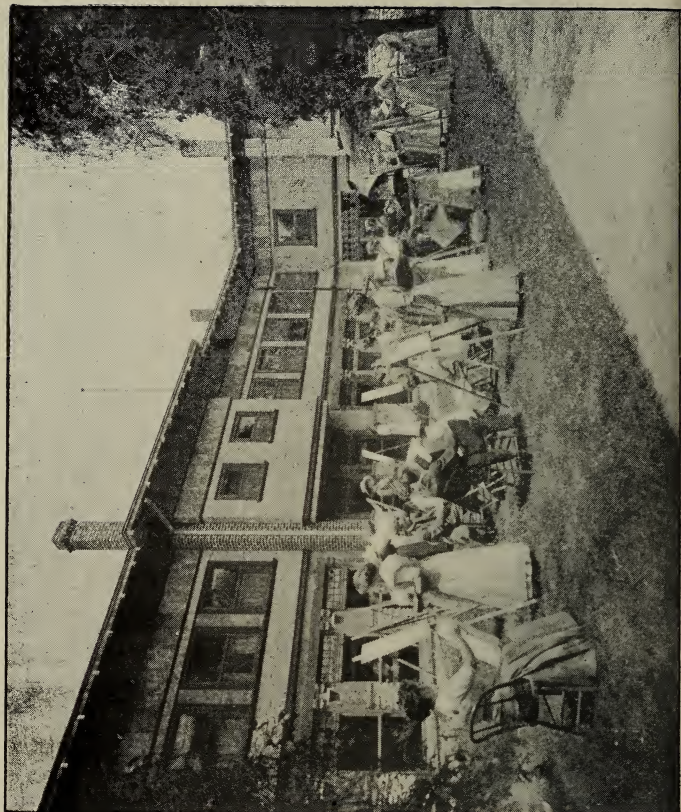
COLLEGE OF
FINE ARTS

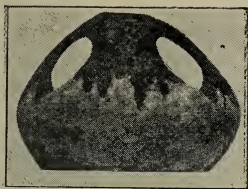
Bulletin



TWELFTH YEAR

Season of 1911 and 1912





CALENDAR 1911-1912

September 18, 1911—Enrollment of students.

September 19, 1911—Commencement of class work.

Christmas vacation begins December 22, Friday.

Class work resumes January 2, Tuesday.

Examination is osteology and special branches last week in January.

Second semester begins February 1, 1912.

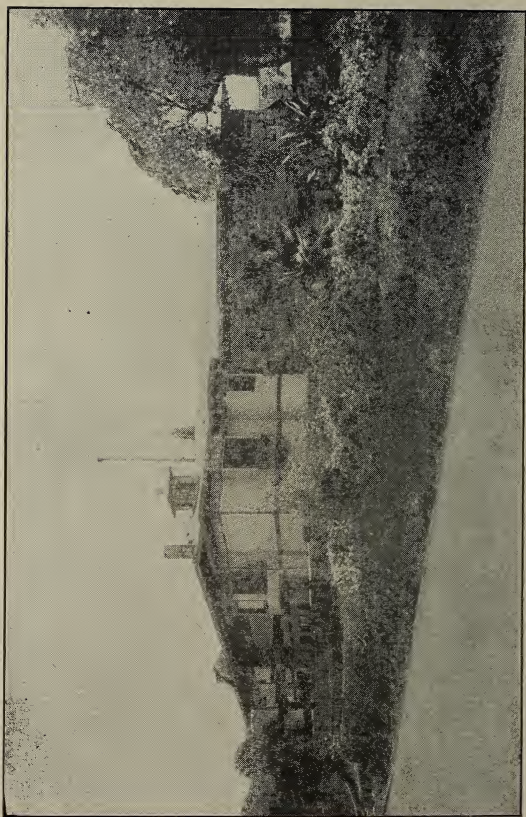
Examinations in anatomy, art history, mythology and technic begin June 1, 1912.

Commencement, June 13, 1912.

Alumni reunion and banquet, June 13, 1912.

All legal holidays will be observed.







OPPORTUNITIES

The phenomenal growth of California in wealth and population has for several years past taxed the capacity of local institutions to supply the demand for expert workers in every line of endeavor.

The educational standard has been gradually raised throughout California as trained teachers have become available until only graduates of accredited art schools can hope to obtain the best positions.

There is a constant and increasing demand for specialists in design. Illustrating is always a wide open field offering rich rewards to the well-trained artist. Mural painting and interior decorating are attractive and remunerative fields of endeavor. In architecture there is

always need of more expert mechanical draftsmen and especially of competent perspective draftsmen.

In pottery, carving, metal working, the demand always exceeds the supply.

It should be remembered, however, that *only the best is worth while*. There are already too many incompetent workers. The best places are waiting only for the well qualified.





ADVANTAGES

The special advantages of this school are many. This ideal climate permits of outdoor work almost continuously. The immediate vicinity of an unspoiled natural park, the famed Arroyo Seco, with a perennial stream and groves of magnificent trees, rocky cliffs and acres of boulders, wide stretches of oak dotted sward and with the eternal snow-capped mountains closing every vista. Mountain canyons, sandy beaches, rocky promontories, and an unparalleled variety of race and costume for models. Probably no spot in the world of the same area

offers more variety or greater abundance of paintable material than the vicinity of this school. Our plan of study is designed to give the student a complete and comprehensive, down-to-date acquaintance with all the details and plan of the course to which he applies himself.

The curriculum of each course is full to the brim with interesting and varied work. No student who once enters the spirit of this school can fail to catch the enthusiasm which makes a joy of one's occupation and is the surest guarantee of success.





COURSES OF STUDY

Teachers' Course THREE YEARS

First Year.—Charcoal drawing from the cast, clay modeling, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year.—Drawing from life, portrait, draped and nude figure, composition, landscape, modeling, ap-

plied design, anatomy, water color, art history, sacred history, pottery and metal work.

Third Year.—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modeling, anatomy, design, art crafts in metal, wood and pottery, normal teaching course.

Architectural Course THREE YEARS

First Year.—Same as teachers' course.

Second Year.—Building construction, plan drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

Third Year.—Architectural design.

Design Course THREE YEARS

First Year.—Free hand and mechanical drawing and original design.

Second Year.—Composition, color, harmony, original design.

Third Year.—Historic design, interior decorating, applied design.

Sculpture THREE YEARS

First Year.—As in teachers' course.

Second Year.—Modeling from life, draped and nude, portrait, art history, mythology, anatomy.

Third Year.—Modeling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

Degree Course FOUR YEARS

First, Second and Third Years.—As in teachers' course.

Fourth Year.—Specializing in water color or oil, life or landscape, etching, pastel painting and design, leading to the degree of Bachelor of Fine Arts.



DIPLOMAS,

certificates and other honors are conferred by the University of Southern California, with which institution the College of Fine Arts is affiliated.

SPECIAL BRANCHES

may be taken separately from the course and certificates of proficiency will be granted on passing the required examinations.

CREDITS

for work done in other schools will be allowed when satisfactory proficiency is shown.

STUDENTS

in special branches may enter the school at any time.

LECTURES

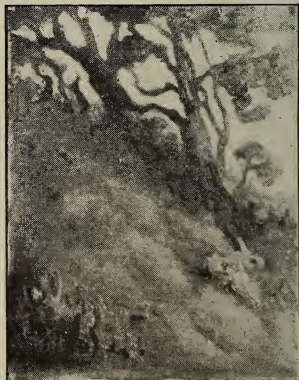
There are three lectures per week on anatomy and other art subjects free to all enrolled students.

FREQUENT COMPETITIONS

are open to advanced students, entitling the winners to certain school privileges.

A GOLD MEDAL

is each year given to the student of any grade making the best record.



A SCHOLARSHIP

for one year is given to the graduate making the best record.

FEES (*All day lessons*)

6 Days per week.....	\$12.00	per month
3 Days per week.....	6.50	per month
1 Day per week.....	3.50	per month
Single Lessons each.....	1.00	
Full Collegiate Year.....	85.00	
Per Semester	45.00	
Graduation fee.....	5.00	

No charge is made for models, lockers, boards, easels,

etc. Materials are furnished to students at lowest rates.

All fees payable in advance.

Class hours: 9 a. m. to 12 m. 1 p. m. to 4 p. m.

Idleness and Discontent are twins.

FACULTY

W. L. Judson, Dean.

Prof. Nell Danely Brooker, Design.

Prof. Edna Blumve, Sculpture.

Prof. Alfa W. Anderson, Metal, Leather.

Prof. Emma Kraft, Jewelry.

Meda Gilchrist, Art History.

Marion Chaddock, Mythology.

W. Braun Hipple, Anatomy.

Helen Ward, Sacred History.

Signe Halquist, Pottery.

Clare Cronenwett, Water Color.

EXAMINERS

Prof. Arley G. Tottenham

John W. Nichols

Alfa W. Anderson, Matron

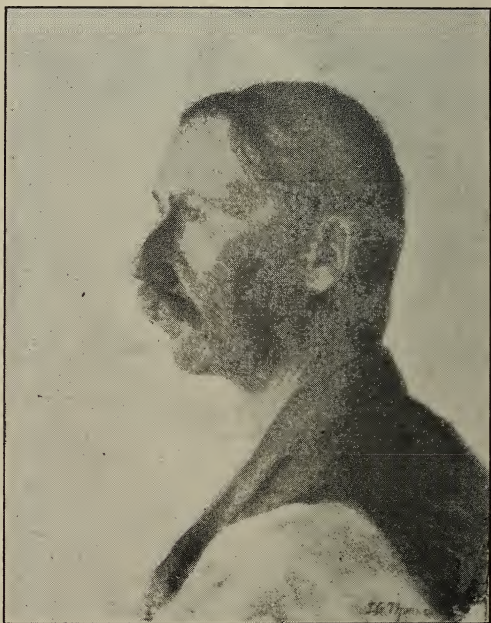


The school dormitories are equipped with every comfort and convenience, including facilities for light house-keeping.

Board and lodging may be had near the school at reasonable rates.

SPECIAL BRANCHES

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.



ANATOMY

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

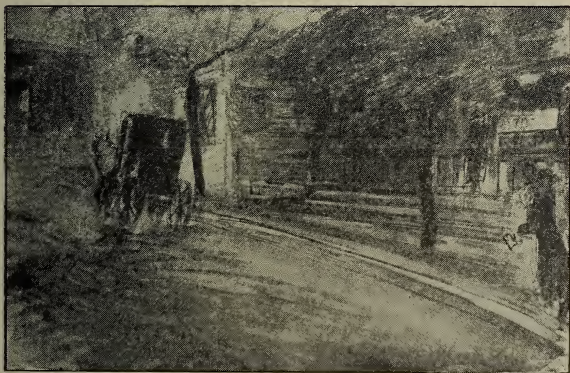
DESIGNING

The course in design covers mechanical drawing, com-

position, the history and principles of ornament, color harmony, the constructive requirements of fabrics, glass work, fictile products, metal work, jewelry, etc.

ILLUSTRATING

This course embraces the technic of charcoal, pencil, pen and brush work, anatomy and the principles of design and composition.



NORMAL ART COURSE

Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, stenciling, cardboard modeling, colored chalks, harmony, design, etc.

METAL WORK—BRASS AND IRON

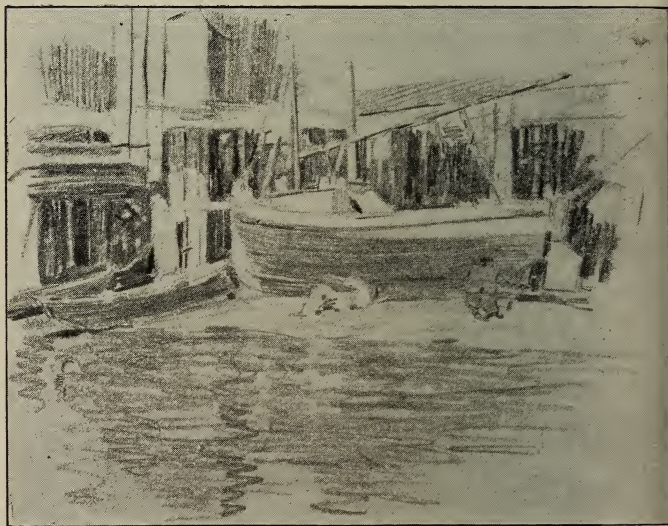
Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enameling.

JEWELRY

This course includes wire and band work, casting, chasing, jewel setting, enameling and design.

WOOD CARVING

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.



POTTERY

Pottery covers clay modeling, the potters' wheel, moulding, glazing, firing, underglaze painting, harmony and design.

MURAL PAINTING

Includes drawing, water color painting, color harmony, composition and practical application.

INTERIOR DECORATING

Including drawing, design, color harmony, composition and the nature and uses of materials.

ART GLASS

Art glass includes design, hard metal mounting, leading, cutting, color harmony, painting on glass and firing.





THE UNIVERSITY

The University of Southern California includes the following colleges, each of which has a distinct faculty of instruction:

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Walter S. Johnson, A.B., M.D., Secretary.

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James Blackledge, A.M., Secretary.

COLLEGE OF PHARMACY—35th St. and Wesley Ave.

Laird J. Stabler, M.S., Ph.C., Dean.

Arthur R. Maas, Ph.C., Secretary.

COLLEGE OF MUSIC—35th Street and Wesley Avenue.

Walter F. Skeelee, A.B., Dean.

Charles E. Pemberton, Secretary.

COLLEGE OF ORATORY—35th Street and Wesley Avenue.

Beulah Wright, Dean.

Gertrude Comstock, Ph.B., Secretary.

COLLEGE OF FINE ARTS—201 North Avenue 66.

William L. Judson, Dean.

Iris Connor, Secretary.

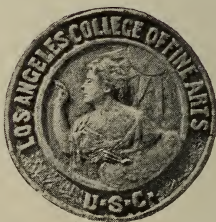
A preparatory school is maintained in connection with the College of Liberal Arts.

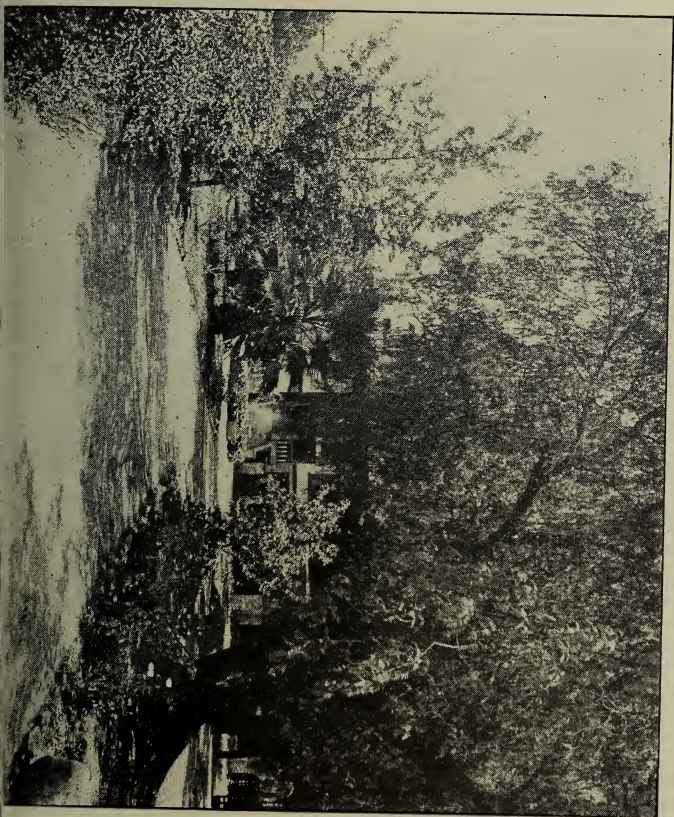
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books containing the courses of study, etc., will be mailed upon application to the addresses given above.

The College of Fine Arts, U. S. C., will open its season of 1911-1912 in its new buildings with largely increased floor space, entirely new equipment, better lighting, more facilities for outdoor study and a full staff of experienced teachers.

The results of the disastrous and spectacular fire of December, 1910, have entirely disappeared, a handsome, symmetrical, commodious and artistic building has taken the place of the old, and with new opportunities and new impulses the management is determined to make the coming season a worthy sequel to the successful years of the past.





Summer School

In addition to the Normal Art Course for teachers there will be classes in design, painting, outdoor sketching, metal work, jewelry, weaving, leather tooling, pottery and sculpture. There will be two lectures per week on the principles of design and composition, pedagogy, etc., free to all enrolled students.

The Normal Art Course is intended to train teachers in presenting art ideas effectively to children of the grade schools from the first to the eighth. It includes



paper cutting, pencil, colored crayon, water color, weaving, block printing, composition, pose drawing, etc.

The design course teaches the principles of form, line and color in their application to ideas of beauty, to design jewelry, art glass fabrics, furniture, architectural decoration, interior furnishings, etc.

The summer crafts classes aim to crowd in all that

it is possible to learn and accomplish in the brief two months' session.

All the classes this summer will be under the general supervision of Dean W. L. Judson, who, with the support of an enthusiastic faculty, will strive to make this 1911 the record summer school of the university.

Schedules

NORMAL COURSE

MON.	TUES.	WED.	THUR.	FRI.
Methods of Teaching Afternoon Lecture	Methods of Teaching	Pose Drawing	Methods of Teaching Afternoon Lecture	Outdoor Sketching

DESIGN COURSE

MON.	TUES.	WED.	THUR.	FRI.
Cast or Life	Design	Cast or Life	Mechanical Drawing	Outdoor Sketching

Fees

Normal and Design Courses and Fine Arts (8 weeks, 5 days per week).....	\$24.00
Three lessons per week, per month.....	7.00
Art Crafts, each course of 12 lessons.....	10.00
Laboratory fee.....	1.00

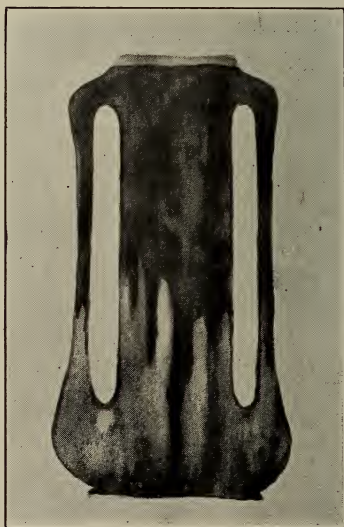
All fees payable in advance.

The dormitories are available for out-of-town students at very moderate cost.

The reading room, gallery, library and piano are accessible to students at all times.

FACULTY

DEAN W. L. JUDSON.....	Painting and Pottery
DEAN W. L. JUDSON.....	Design and Normal
PROF. ALFA WOOD ANDERSON.....	Art Crafts
PROF. EDNA BLUMVE.....	Sculpture
PROF. EMMA KRAFT.....	Jewelry
IRIS CONNOR.....	Secretary



Browne & Cartwright Print
6172 Marmion Way
Los Angeles

uzli
112/13

University of Southern California College of Fine Arts BULLETIN

Thirteenth
Year

Season of
1912-1913

Los Angeles
California

South Pasadena
Car to Avenue 66



UNIVERSITY OF ILLINOIS

AUG 31 1915

PRESIDENT'S OFFICE

Home Phone 39086
Sunset East 1375

University of Southern California

College of
Fine Arts

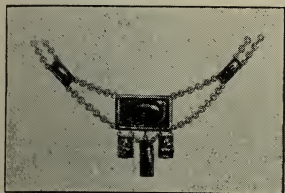
Bulletin



Thirteenth Year

Season of 1912 and 1913





1912-1913 Calender

Monday, September 16, 1912—Enrollment of students.

Wednesday, September 18, 1912—Commencement of class work.

Christmas vacation begins December 23, Monday.

Class work resumes January 2, Tuesday.

Examinations in osteology and special branches last week in January.

Second semester begins February 1, 1913.

Examinations in anatomy, drawing, art history, mythology and technic begin June 1, 1913.

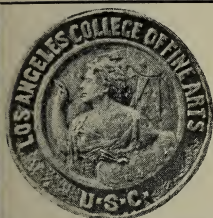
Commencement, June 15, 1913.

Alumni reunion and banquet, June 15, 1913.

All legal holidays will be observed.



J. Hayman
APRIL 11/12



College of Fine Arts

University of Southern California

W. L. Judson, Dean



212 Thorne Street Los Angeles

Home Phone 39086; Sunset East 1375

Bulletin, 1912-1913

Another successful year has demonstrated the wisdom and value of the college plan of teaching art.

The fullness of the curriculum and the constant supervision of each line of work by competent teachers insures that the student will have a thorough grounding in the fundamental principles of art and the graduate will know all that an intelligent and cultured artist or teacher should know.

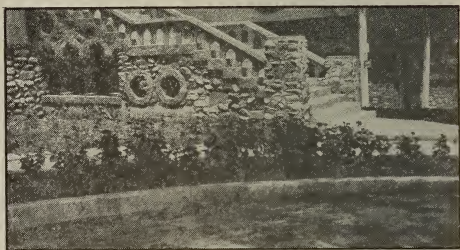
Further, the concentrating of the third year's work on the chosen specialty insures that the student will leave the school well equipped to enter the ranks of workers with confidence and assurance of success.

OUR AIM

The value of a school can only be measured by its efficiency. The success of the graduates of this college in the public and private schools and stu-

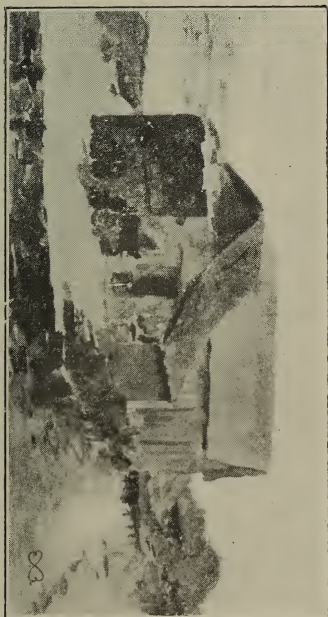
dios of California and Eastern cities is ample testimony to the efficiency of our methods.

The college motto "ONLY THE BEST IS WORTH WHILE" is a compelling incentive and nothing will be spared at any time in our efforts to make the College of Fine Arts, U. S. C., the best in this country, ideal in every respect.



SPECIAL ADVANTAGES OF THIS SCHOOL

The ideal location of this college climatically, geographically and locally is a subject of nation wide comment. Situated on a high bluff overlooking the famous Arroyo Seco with its grand old trees and its perennial stream it offers an endless variety of sketching material close at hand. Unspoiled natural groves of live oaks and sycamores, running streams, picturesque canyons, miles of the largest flower gardens in the world, rolling surf or sandy beaches, rocky promontories, a variety of race and costume not excelled anywhere, handsome, pic-



turesque college buildings with every possible convenience of equipment, beautiful grounds and a well trained and harmonious teaching staff under a dean of national reputation, the fullness and thoroughness of the curriculum, are all unique and exceptional advantages.

Students, visitors and critics alike agree in pronouncing the College of Fine Arts an ideal art school.





COURSES OF STUDY

Teachers' Course THREE YEARS

First Year—Charcoal drawing from the cast, clay modeling, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year.—Drawing from life, portrait, draped and nude figure, composition, landscape, modeling, applied design, anatomy, water color,

art history, sacred history, pottery, wood carving and metal work.

Third Year.—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modeling, anatomy, design and normal teaching course.

Architectural Course THREE YEARS

First Year.—Same as teachers' course.

Second Year.—Building construction, water color, plane drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

Third Year.—Architectural design.

Illustrating Course THREE YEARS

First and Second Years.—Same as teachers' course.

Third Year.—Painting in water and oil, pen and wash drawing, caricature, cartooning and composition.

Design Course THREE YEARS

First Year.—Free hand and mechanical drawing, original design, art history.

Second Year.—Composition, color harmony, original design, anatomy.

Third Year.—Historic ornament, fabrics, interior decorating, applied design.

Sculpture THREE YEARS

First Year.—As in teachers' course.

Second Year.—Modeling from life, draped and nude, portrait, art history, mythology, anatomy.

Third Year.—Modeling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

Degree Course **FOUR YEARS**

First, Second and Third Years.—As in teachers' course, with the addition of French or German in the second and third years.

Fourth Year.—Specializing in the chosen line in painting, sculpture or architecture, leading to the degree of Bachelor of Fine Arts.





DIPLOMAS

certificates and other honors are conferred by the University of Southern California, with which institution the College of Fine Arts is affiliated.

SPECIAL BRANCHES

may be taken separately from the course and certificates of proficiency will be granted on passing the required examinations.

CREDITS

for work done in other schools will be allowed when satisfactory proficiency is shown.

STUDENTS

in special branches may enter the school at any time.

LECTURES

There are three lectures per week on anatomy and other art subjects free to all enrolled students, with occasional lectures by noted teachers and artists.

ENTRANCE REQUIREMENTS

For the teachers' course and the degree course, high school credits or their equivalents. For other courses and special branches, credits from other schools or examination.

FREQUENT COMPETITIONS

are open to advanced students, entitling the winners to certain school privileges.

A GOLD MEDAL

is each year given to the student of any grade making the best record.

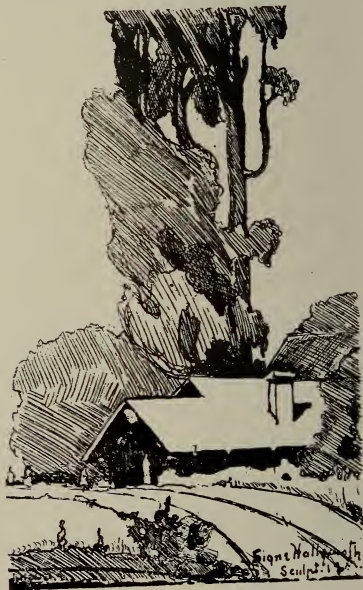
A SCHOLARSHIP

for one year is given to the graduate making the best record.

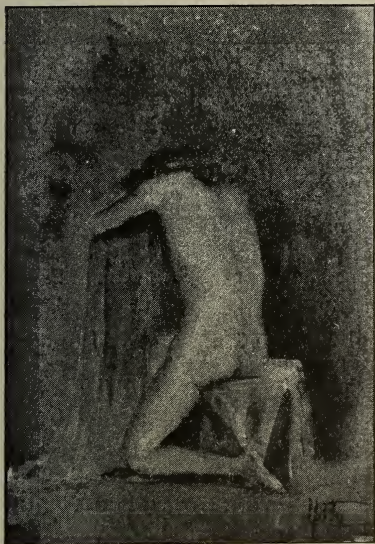


FEES (All day lessons)

6 Days per Week.....	\$13.00 per month
3 Days per Week.....	7.00 per month
1 Day per Week.....	4.00 per month
Single Lessons	2.00 each
Full Collegiate Year.....	95.00
Per Semester	50.00
Graduation Fee	5.00
Laboratory Fee for the Crafts..	1.00 per term
No charge made for models, lockers, boards, easels, etc.	

ALL FEES PAYABLE IN ADVANCE

Signe Walker
Sculptor



Materials are furnished to students at lowest rates.

Class hours: 9 a. m. to 12 m. 1 p. m. to 4 p. m.

The school dormitories are equipped with every comfort and convenience, including facilities for light housekeeping.

Board and lodging may be had near the school at reasonable rates.

FACULTY

GEORGE FINLEY BOVARD, A. M., D. D., LL.D.

.....	President of the University
W. L. Judson.....	Dean of the College of Fine Arts
Prof. Arley G. Tottenham.....	Mechanical Drawing
Prof. Nell Brooker Mayhew.....	Outdoor Sketching
Prof. Ina G. Thorne.....	Painting and Drawing
Prof. Ava Wells.....	Painting and Drawing
Prof. Signe Hallquist.....	Pottery
Prof. Meda Gilchrist.....	Sculpture
Robert Lee Eskridge.....	Water Color
Iris Connor.....	Advanced Art History
Fred L. Browne.....	Mythology
Florence Sargent.....	Anatomy
Ruth Burns.....	Sacred History
Ellsworth Martin.....	Pen Drawing
Iris Connor.....	Secretary



SPECIAL BRANCHES

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.

ANATOMY

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

NORMAL ART COURSE

Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, stenciling, cardboard modeling, colored chalks, harmony, design, etc.

METAL WORK—BRASS AND IRON

Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enameling.

JEWELRY

This course includes wire and band work, casting, chasing, jewel setting, enameling and design.

WOOD CARVING

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.

POTTERY

Pottery covers clay modeling, the potters' wheel, moulding, glazing, firing, underglaze painting, harmony and design.



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MURAL PAINTING

Includes drawing, water color painting, color harmony, composition and practical application.

INTERIOR DECORATING

Including drawing, design, color harmony, composition and the nature and uses of materials.

ART GLASS

Art glass includes design, hard metal mounting, leading, cutting, color harmony, painting on glass and firing.

SUMMER SCHOOL

A summer school is maintained, beginning about June 20 of each year.

All branches of fine and applied art are taught, the fees being about the same per month as in the full course.

Special circulars will be mailed on application.





A preparatory school is maintained in connection with the College of Liberal Arts.

Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upon application



The University of Southern California includes the following colleges, each of which has a distinct faculty of instruction:

THE UNIVERSITY

COLLEGE OF LIBERAL ARTS—35th St. and Wesley
George F. Bovard, A.M., D.D., LL.D.
President.

Roy E. Schulz, A.B., Secretary.

COLLEGE OF PHYSICIANS AND SURGEONS—516 East
Washington St.

Charles W. Bryson, A.B., M.D., Dean.

Walter S. Johnson, A.B., M.D., Secretary.

COLLEGE OF DENTISTRY—Fifth and Wall Streets.
Lewis E. Ford, D.D., Dean.

William Bebb, D.D.S., Secretary.

COLLEGE OF LAW—Exchange Bldg., Third and
Hill Streets.

Frank M. Porter, A.B., LL.M., Dean.

Gavin W. Craig, LL.M., Secretary.

COLLEGE OF THEOLOGY—35th Place and Hoover St.
Ezra A. Healy, A.M., D.D., Dean.

James Blackledge, A.M., Secretary.

COLLEGE OF PHARMACY—35th St. and Wesley Ave.
Laird J. Stabler, M.S., Ph. C., Dean.

Arthur R. Maas, Ph.C., Secretary.

COLLEGE OF MUSIC—35th Street and Wesley Ave.
Walter F. Skeele, A.B., Dean.

Charles E. Pemberton, Secretary.

COLLEGE OF ORATORY—35th St. and Wesley Ave.
Beulah Wright, Dean.

Gertrude Comstock, Ph.B., Secretary.

COLLEGE OF FINE ARTS—201 North Avenue 66.
William L. Judson, Dean.

Iris Connor, Secretary.

The College of Music

Of the University of



Southern California

The College of Music of the University will maintain a Branch School in the Fine Arts Building, beginning with the opening of the Fall Semester, 1912. This well known institution is one of the oldest departments of the University, being now in its twenty-seventh year. Its faculty includes some of the most widely known teachers in the Southwest. It offers full courses leading to graduation in nearly all branches of musical study. Its students are allowed credits for musical work in the College of Liberal Arts.

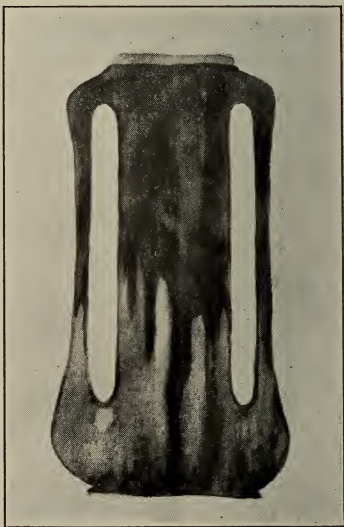
The establishment of this department in the College of Fine Arts will afford an unsurpassed opportunity for the joint study of both subjects. Students will also be received for musical work alone, whether aiming to complete the entire course or take special subjects only. Tuition rates range from one dollar to three dollars and a half per lesson and are remarkably low, considering the quality of

the work offered and the standing and reputation of the teachers.

Full information regarding courses of study, recitals, diplomas and certificates, college credits, the faculty, business regulations and tuition rates will be found in the regular school catalogue, which will be sent upon application.

Address

W. F. SKEELE, Dean, 215 Thorne Street.
Home Phone 39368.



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University of Southern California

College of
Fine Arts

Bulletin



Fourteenth Year

Season of 1913 and 1914

UNIVERSITY OF ILLINOIS LIBRARY
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UNIVERSITY OF ILLINOIS

AUG 31 1915

PRESIDENT'S OFFICE

University of Southern California

College of
Fine Arts

Bulletin

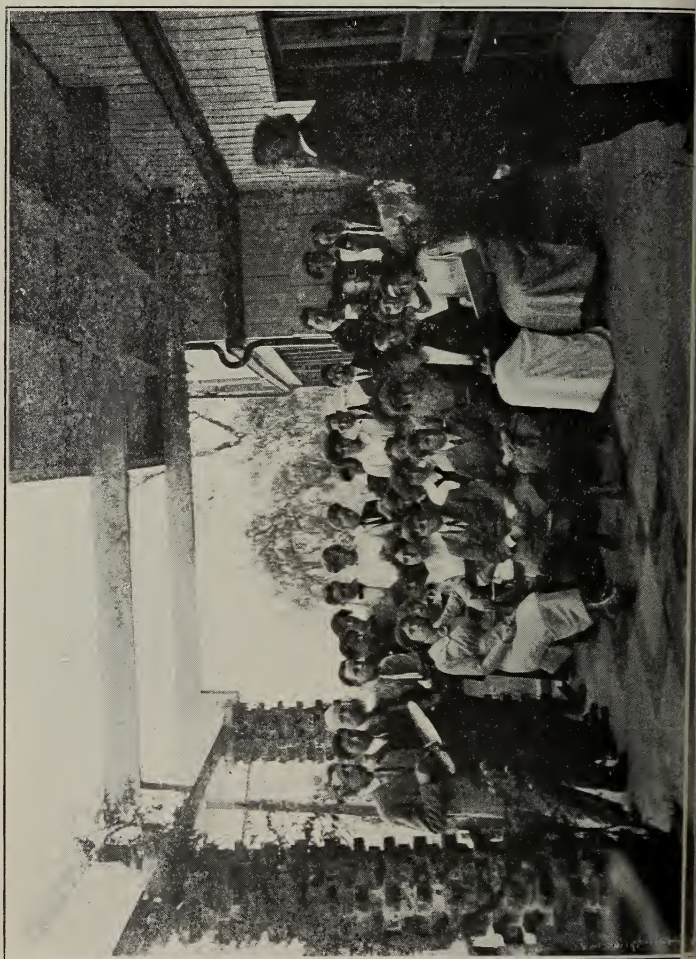


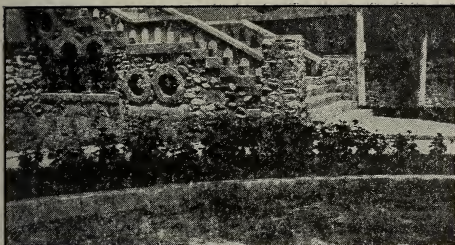
Fourteenth Year

Season of 1913 and 1914

Home Phone 39086

Sunset Garvanza 375





1913-1914 Calender

Monday, September 15, 1913—Enrollment of students.

Wednesday, September 7, 1913—Commencement of class work.

Christmas vacation begins December 22, Monday.

Class work resumes January 4, 1914, Monday.

Examinations in osteology and special branches begin Monday, January 22, 1914.

Second semester begins February 2, 1914.

Examinations in anatomy, drawing, art history, mythology and technic begin June 1, 1914.

Commencement, June 15, 1914.

Alumni reunion and banquet, June 11, 1914.



College of Fine Arts

University of Southern California

W. L. Judson, Dean

Garvanza 375
Home 39086



200 S. Ave. 66
Los Angeles

Bulletin, 1913-1914

The great success of the graduates of the College of Fine Arts in the schools, studios and workshops of California and eastern cities has so fully justified the college plan of teaching art that a return to the old art school methods is unthinkable.

Competition in all lines has become so strenuous that success can only be attained by a thorough and intimate knowledge of one's profession and this by a systematic and logical course of study

covering all the phases of art expression and specializing on one chosen subject.

"Only the Best is Worth While" is the motto and rule of conduct of this college.

Special Advantages

It would be impossible to overrate the natural advantages of location of the College of Fine Arts, surrounded as it is by a wealth of paintable material, unmatched in variety and beauty, and in a climate which makes it a joy to be alive.

The buildings are both picturesque and beautiful. The grounds ample and handsome with trees, flowers and lawns.

The studios, nine of them, are large, well lighted, well ventilated, with picture gallery, cloak rooms, reception room and all modern conveniences.

Every room is perfectly equipped for its purpose, cast, life, sculpture, architecture, pottery, metal, etc.

This perfect climate permits of much outdoor study the year round, adding greatly to the health, comfort and enjoyment of students.

The faculty consists of a dean of international reputation and expert teachers in every department.

Our plan of instruction is by daily and frequent criticism, all-day lessons, individual instruction and bi-monthly competitions.

The social side of college life is provided for by an assembly room with piano, reception and

cloak rooms, frequent social gatherings, an enthusiastic student body managing all its own affairs.

All these things assist in producing that much-desired art atmosphere which is so potent a factor in holding the interest and stimulating the imagination of students.





Courses of Study

Teachers' Course THREE YEARS

First Year—Charcoal drawing from the cast, clay modeling, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year—Drawing from life, portrait, draped and nude figure, composition, landscape, modeling, applied design, anatomy, water color, art history, sacred history, pottery, wood carving and metal work.

Third Year—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modeling, anatomy, design and normal teaching course.

Architectural Course THREE YEARS

First Year—Same as teachers' course.

Second Year—Building construction, water color, plane drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

Third Year—Architectural design.

Illustrating Course THREE YEARS

First and Second Years—Same as teachers' course.

Third Year—Painting in water and oil, pen



and wash drawing, caricature, cartooning and composition.

Design Course THREE YEARS

First Year—Free hand and mechanical drawing, original design, art history.

Second Year—Composition, color harmony, original design, anatomy.

Third Year—Historic ornament, fabrics, interior decorating, applied design.

Sculpture THREE YEARS

First Year—As in teachers' course.

Second Year—Modeling from life, draped and nude, portrait, art history, mythology, anatomy.

Third Year—Modeling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

Degree Course FOUR YEARS

First, Second and Third Years—As in teachers' course, with the addition of French or German in the second and third years.

Fourth Year—Specializing in the chosen line in painting, sculpture or architecture, leading to the degree of Bachelor of Fine Arts.

Transient Students in Special Branches—May enter or leave the school at any time.



LECTURES

There are three lectures per week on anatomy and other art subjects free to all enrolled students, with occasional lectures by noted teachers and artists.

ENTRANCE REQUIREMENTS

For the teachers' course and the degree course, high school credits or their equivalents. For other courses and special branches, credits from other schools or examination.

TRANSIENT OR SHORT TERM STUDENTS

may enter at any time without examination.

FREQUENT COMPETITIONS

are open to advanced students, entitling the winners to certain school privileges.

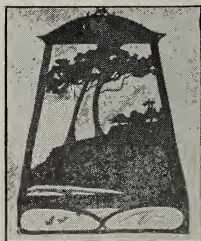
A GOLD MEDAL

is each year given to the student of any grade making the best record.

A SCHOLARSHIP

for one year is given to the graduate making the best record.





Special Branches

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.

ANATOMY

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

NORMAL ART COURSE

Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, stenciling, cardboard modeling, colored chalks, harmony, design, etc.

METAL WORK—BRASS AND IRON

Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enameling.

JEWELRY

This course includes wire and band work, casting, chasing, jewel setting, enameling and design.

WOOD CARVING

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.

POTTERY

Pottery covers clay modeling, the potters' wheel, moulding, glazing, firing, underglaze painting, harmony and design.

MURAL PAINTING

Includes drawing, water color painting, color harmony, composition and practical application.

INTERIOR DECORATING

Includes drawing, design, color harmony, composition and the nature and uses of materials.

ART GLASS

Art glass includes design, hard metal mounting, leading, cutting, color harmony, painting on glass and firing.



Summer School

A summer school is maintained, beginning about June 20 of each year.

All branches of fine and applied art are taught, the fees being about the same per month as in the full course.

Special circulars will be mailed on application.

Materials may be purchased at the school at lowest rates.

Class hours: 9 a. m. to 12 m. 1 p. m. to 4 p. m.

The school dormitories are equipped with every comfort and convenience, including facilities for light housekeeping.

Board and lodging may be had near the school at reasonable rates.

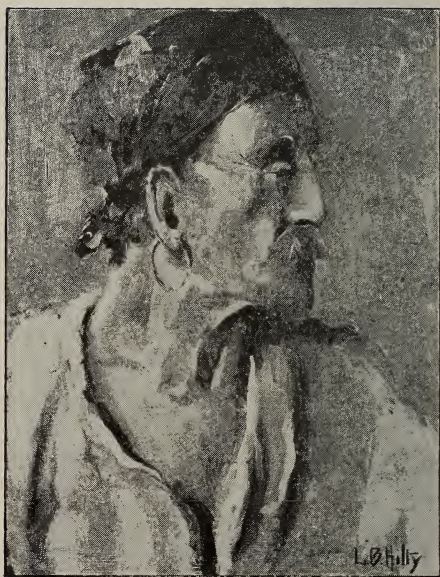
FEES (All day lessons)

6 Days per Week.....	\$13.00	per month
3 Days per Week.....	7.00	per month
1 Day per Week.....	4.00	per month
Single Lessons.....	2.00	each
Full Collegiate Year.....	95.00	
Per Semester.....	50.00	
Graduation Fee	5.00	
Laboratory Fee for the Crafts....	1.00	per term

No charge made for models, lockers, boards, easels, etc.

No fees will be refunded, but time will be extended in case of sickness or unavoidable absence from the city for one month or more.

ALL FEES PAYABLE IN ADVANCE



The Faculty

GEORGE FINLEY BOVARD.....
.....	President of the University
William L. Judson.....	Dean
Arley G. Tottenham.....	Mechanical Drawing
.....	[On Leave of Absence]
Fred L. Browne.....	Mechanical Drawing
Ava Wells.....	Painting and Drawing
Frank G. Tapner.....	Metal Work
Clyde G. Ellis.....	Craftsmanship

ASSISTANTS

Florence Sargent.....	Design
Ruth Burns.....	Sacred History
Jessie Layne.....	Art History
Josephine Preble.....	Advanced Art History
Harvey Hastings	Anatomy
Helen Anderson.....	Water Color
Josephine Chambers.....	Modeling
Mrs. Florence Simpson.....	First Year Sketching

A preparatory school is maintained in connection with the College of Liberal Arts.

Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upon application.

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Washington St.

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Walter S. Johnson, A.B., M.D., Secretary.

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William Bebb, D.D.S., Secretary.

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Hill Streets.

Frank M. Porter, A.B., LL.M., Dean.

Gavin W. Craig, LL.M., Secretary.

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James Blackledge, A.M., Secretary.

COLLEGE OF PHARMACY—35th St. and Wesley Ave.

Laird J. Stabler, M.S., Ph.C., Dean.

Arthur R. Maas, Ph.C., Secretary.

COLLEGE OF MUSIC—35th Street and Wesley Ave.

Walter F. Skeeel, A.B., Dean.

Charles E. Pemberton, Secretary.

COLLEGE OF ORATORY—35th St. and Wesley Ave.

Beulah Wright, Dean.

Gertrude Comstock, Ph.B., Secretary.

COLLEGE OF FINE ARTS—201 North Avenue 66.

William L. Judson, Dean.

Iris Connor, Secretary.

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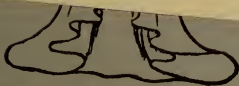
UNIVERSITY OF SOUTHERN CALIFORNIA
COLLEGE OF FINE ARTS
BULLETIN

Sixteenth
Year



Los Angeles
California

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Home Phone C 6088 UNIVERSITY OF ILLINOIS Sunset Garv. 375

AUG 31 1915

PRESIDENT'S OFFICE

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UNIVERSITY OF SOUTHERN CALIFORNIA
COLLEGE OF FINE ARTS
BULLETIN

Sixteenth
Year

Season of
1915 - 1916

Los Angeles
California

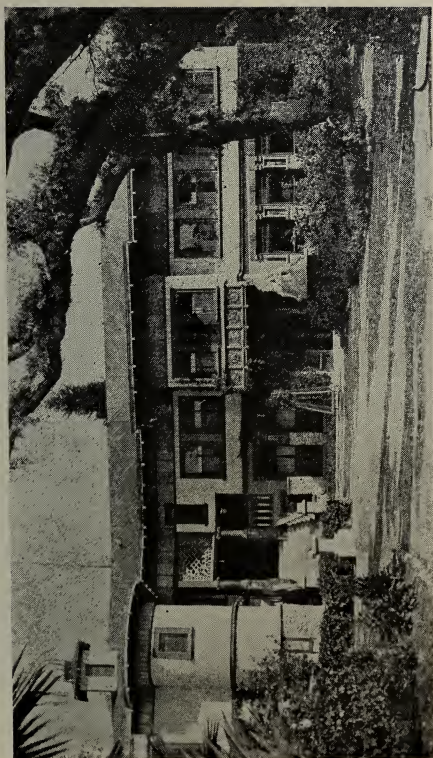
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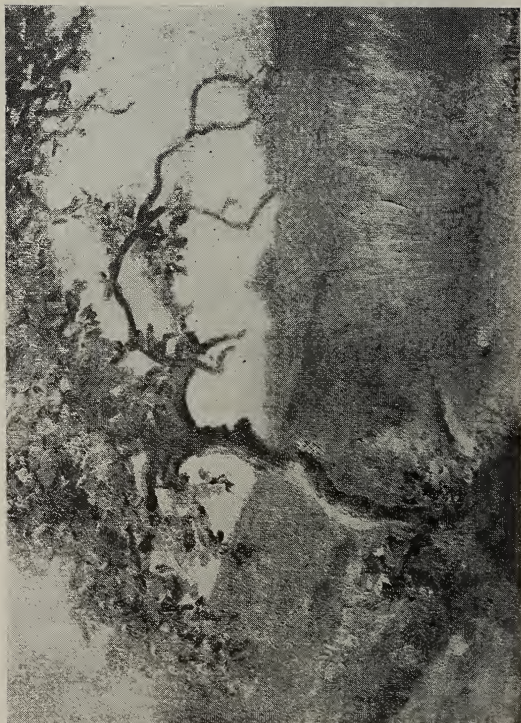


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AUG 31 1915

PRESIDENT'S OFFICE





COLLEGE OF FINE ARTS
Of the University of
Southern California
Bulletin



1915 - 1916

Sixteenth Year



200 South Avenue 66
LOS ANGELES, CAL.

Phone C9086

Sunset Garvanza 375



Calendar *for* 1915-1916

Monday, September 13, 1915—Enrollment of students.

Wednesday, September 15, 1915—Commencement of class work.

Christmas vacation begins December 20, Monday.

Class work resumes January 2, 1916, Monday.

Examinations in osteology and special branches last week in January.

Second Semester begins February 1, 1916.

Examinations in anatomy, drawing, art history, mythology and technic begin May 30, 1916.

Commencement, June 8, 1916.

Alumni reunion and banquet June 8, 1916.

Legal holidays will be observed.



COLLEGE of FINE ARTS

U. S. C.

The constant and gradual raising of the standard of efficiency in all lines of artistic occupation makes it imperative that the preparation of the student for his life work shall be the best obtainable. The motto of the College of Fine Arts "ONLY THE BEST IS WORTH WHILE" is every year becoming more and more an evident truth. There are still and always will be great opportunities for those who are well qualified as art teachers, painters, architects, sculptors, designers and artisans, but life moves at a strenuous gait nowadays and every ambitious student owes it to himself to get the best.

The purpose of a student in any branch of art is to acquire an understanding of beauty, an eye for form, a love and knowledge of color, a dexterity of hand and a logical technic, but success in life demands also industry, tenacity, self control, sincerity, cooperation and courtesy and these things mean character.

The influences of college life in character building are often the factors on which success in life depends, therefore it becomes of great importance in selecting a school to discover where these advantages may best be obtained.

The conditions of living in Southern California are ideal. Study where it is a joy to be alive.

THE COURSES

ENTRANCE REQUIREMENTS FOR THE TEACHER'S COURSE AND THE COURSES LEADING TO DEGREES: Fifteen units of high school work, uniform with requirements for admission to the College of Liberal Arts.

ADVANCED STANDING: Credits for work done in other art schools will be allowed when satisfactory proficiency is shown.

STUDENTS may register for special branches to be taken separately. In such cases certificates of proficiency are granted on the student's passing the required examinations. Students in special branches may enter the school at any time without examination.

PAINTERS' COURSE—FOUR YEARS

(Leading to the degree of Bachelor of Fine Arts)

FIRST YEAR—Charcoal drawing from the cast; clay modeling; pencil drawing from landscape; mechanical drawing, including geometry, perspective, and projection; art history and mythology

SECOND YEAR—Composition and drawing from life of draped and nude figure, portraiture, landscape; anatomy, modeling; water color; art history, sacred history; German or French

THIRD YEAR—Painting in water color and oil from life and landscape; pen and wash drawing; composition, modeling; and design; normal teaching course; German or French

FOURTH YEAR—Specializing in the chosen line in painting or sculpture

ILLUSTRATING COURSE (THREE YEARS)

(Leading to a Diploma)

First and Second Years—As in painters' course.

Third Year—Painting in water and oil, pen and wash drawing, caricature, cartooning, and Composition.

DESIGN COURSE (THREE YEARS)

Leading to a Diploma)

First Year—Free hand and mechanical drawing, original design, art history, mythology.

Second Year—Composition, color harmony, original design, anatomy.

Third Year—Historic ornament, fabrics, interior decorating, applied design.

Students in special courses or for short terms may enter the school at any time without examination.

ARCHITECTURAL COURSE—FOUR YEARS

FIRST YEAR—Mathematics, freehand drawing, mechanical drawing, design, outdoor sketching, art history, mythology

SECOND YEAR—Life, water color, clay modeling, civil engineering

THIRD YEAR—Architectural drawing, historic styles, history of architecture, graphic statics, heating and ventilating, anatomy, structural design

FOURTH YEAR—Plan drawing, original design; applied perspective, practical work on buildings under construction and landscape gardening.

SCULPTURE—THREE YEARS

FIRST YEAR—As in teachers' course

SECOND YEAR—Modeling from life, draped and nude, portrait, art history, mythology, anatomy

THIRD YEAR—Modeling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal

TEACHERS' COURSE—THREE YEARS

FIRST YEAR—Charcoal drawing from the cast, clay modeling, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology

SECOND YEAR—Drawing from life, portrait, draped and nude figure, composition, landscape, modeling, applied design, anatomy, water color, art history, sacred history, pottery, wood carving and metal work.

THIRD YEAR—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modeling, anatomy, design and normal teaching course

LOCATION AND EQUIPMENT

The special advantages of this school are many. The College of Fine Arts of the University of Southern California is situated on a cliff overlooking an unspoiled natural park, the famed Arroyo Seco, with a perennial stream and groves of magnificent trees, rocky cliffs and acres of boulders, wide stretches of oak-dotted sward, and the eternal snow-capped mountains closing every vista. Near at hand are mountain canyons, sandy beaches, rocky promontories, and an unparalleled variety of race and costume for models. Probably no spot in the world of the same area offers more variety or greater abundance of paintable material, and the ideal climate permits of outdoor work almost continuously.

The buildings are handsome and commodious. There are nine large, well-lighted, and well-ventilated studios; a picture gallery; an assembly room with piano; a reception room; cloak rooms and dormitories with every possible convenience. Every room is perfectly furnished for its purpose. There is an abundant equipment of sculpture, casts, designs in architecture, pottery, metal, jewelry, etc. The library contains all the standard art magazines and many volumes upon art subjects. There are also ample grounds for recreation and outdoor study.

The curriculum embraces every department of graphic and plastic art that can be learned from teachers or books. This fullness of curriculum and the constant supervision of each department of work by expert teachers, giving instruc-

tion that is largely individual, insure that the student will have a thorough grounding in the fundamental principles of art, and that the graduate will know all that an intelligent and cultured artist and teacher should know. Further, the concentrating of the third year's work on the chosen specialty insures that the student will leave the college well equipped to enter the ranks of workers with assurance of success. The courses are full to the brim with interesting and varied work. No student who once enters the spirit of this school can fail to catch the enthusiasm which makes a joy of one's occupation and is the surest guarantee of success





Only the best is worth while.
Get the best.

Study where it is a joy to be alive:
California.

A contented and tranquil mind is
essential to the enjoyment
of art study.

SPECIAL BRANCHES

THE PAINTING COURSE: This course includes drawing; color harmony and composition; technic in water and oil; anatomy; the chemistry of pigments.

ARTISTIC ANATOMY: This course includes study of the skeleton and the superficial muscles, and of movements from life.

NORMAL ART COURSE: This course includes pedagogy and practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal, and wash, silhouettes, stenciling, cardboard modeling, colored chalks, harmony, design.

METAL WORK—BRASS AND IRON: This course includes hammer work, etching, chasing, piercing mould making, casting, forging, enameling.

JEWELRY: This course includes wire and band work casting, chasing, Jewel setting, enameling and design.

WOOD CARVING: This course includes design, the selection of woods, and the technic of carving, incising, bas-relief, and the round.

POTTERY: This course includes clay modeling, the potter's wheel, moulding, glazing, firing, underglaze painting harmony, and design.

MURAL PAINTING: This course includes drawing, water color and oil painting, color harmony, composition and practical application.

INTERIOR DECORATING: This course includes drawing design, color harmony, composition, and the nature and use of materials.

ART GLASS: This includes design, hard-metal mounting leading, cutting, color harmony, painting on glass, and firing

SUMMER SCHOOL

A summer school is maintained, beginning about July first of each year.

All branches of fine and applied art are taught, the fees being about the same per month as in the full course.

Special circulars will be mailed on application.



PRIZES

A gold medal is awarded to the student making the best record.

A scholarship for one year is awarded to the member of the graduating class making the best record.

FEES AND EXPENSES

FEES

(All-day lessons; hours, 9 a.m. to 12 m.; 1 p. m. to 4 p.m.)	
Full Collegiate Year	\$100 00
Collegiate Semester	55 00
Per month, six days per week	15 00
Per month, three days per week	8 00
Per month, one day per week	4 50
Single lessons. each	2 00
Laboratory Fee for Crafts, per term	1 00
Graduation Fee	5 00

REMARKS

ALL FEES PAYABLE IN ADVANCE.

There are three lectures per week on anatomy and other art subjects free to all enrolled students, with occasional lectures by noted teachers and artists

No charge is made for models, lockers, boards, easels.

Materials are furnished to students at the lowest rates.

The school dormitories are equipped with every comfort and convenience, including facilities for light house-keeping.

Board and lodging may be had near the school at reasonable rates.

The picture gallery is open to the public afternoons.

For further information address

THE COLLEGE of FINE ARTS

200 Avenue 66, Los Angeles



FACULTY

GEORGE FINLEY BOVARD.....	President of the University
WILLIAM LEES JUDSON.....	Dean
AVA CLARISSA WELLS.....	Painting and Drawing
FRANK GEORGE TAPNER.....	Metal and Jewelry
EMMA FRANCES BRIDGES.....	Applied Arts
LORENA BERNARDINE HILTY.....	Design
ERNEST BRAUNTON.....	Landscape Gardening
ARTHUR CLASON WEATHERHEAD.....	Architectural Drawing
VIRGINIA RAMSEY.....	Secretary

ASSISTANTS

MADELINE FOUCHAUX.....	Art History
MARIE S. CLARKE.....	Advanced Art History
OSCAR HAMMERCAS.....	Still Life
LABELLE PATTERSON.....	Mythology
PAUL S. SPRUNCK.....	Anatomy

Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upon application.

The University of Southern California includes the following colleges, each of which has a distinct faculty of instruction :

THE UNIVERSITY

COLLEGE OF LIBERAL ARTS—35th and University Avenue
George F. Bovard, A.M., D.D., LL.D., President
Roy E. Schulz, A.B., Secretary

COLLEGE OF PHYSICIANS AND SURGEONS—516 E. Wash'n St
Charles W. Bryson, A.B., M.D., Dean
Walter S. Johnson, A.B., M.D., Secretary

COLLEGE OF DENTISTRY—Fifth and Wall Streets
Lewis E. Ford, D.D., Dean
William Bebb, D.D.S., Secretary

COLLEGE OF LAW—Exchange Bldg., Third and Hill Street
Frank Porter, A.B., LL.M., Dean
Gavin W. Craig, LL.M., Secretary

COLLEGE OF THEOLOGY—35th Place and Hoover Street
Ezra A. Healy, A.M., D.D., Secretary
James Blackledge, A.M., Secretary

COLLEGE OF PHARMACY—35th St. and University Avenue
Laird J. Stabler, M.S., Ph.C., Dean
Arthur R. Maas, Ph.C., Secretary

COLLEGE OF MUSIC — Top floor of Mason Opera House
Walter F. Skeelee, A.B., Dean
Charles E. Pemberton, Secretary

COLLEGE OF ORATORY—35th Street and University Avenue
Beulah Wright, Dean
Gertrude Comstock, Ph.B., Secretary

COLLEGE OF FINE ARTS—200 S. Avenue 66
William L. Judson, Dean
Virginia Ramsey, Secretary

The numerals indicate the number of hours a week

PAINTER'S COURSE

1st Year

Drawing from Cast, 15
Still Life, 6
Mechanical Drawing, 3
Anatomy, 1
Sketching from Nature, 3
Art History, 1
French or German, 2

4th Year

Leading to the degree of B. F. A.
Painting, 12
Illustrating, 12
Composition, 6
Clay Modeling, 3

TEACHER'S COURSE

1st Year

Drawing from Cast, 12
Still Life, 6
Mechanical Drawing, 6
Anatomy, 1
Sketching from Nature, 3
Art History, 1
French or German, 2

2nd Year

Drawing from Life, 8
Water Color from Life, 6
Still Life, 6
Mechanical Drawing, 3
Anatomy, 1
Design, 3
Sacred History, 1
Outdoor Sketching, 3
Applied Arts, 6
French or German, 2

2nd Year

Drawing from Life, 12
Water Color from Life, 6
Still Life, 6
Anatomy, 1
Design, 3
Sacred History, 1
Outdoor Sketching, 3
French or German, 2

3rd Year

Painting from Life, 2
Pen and Wash from Life, 9
Clay Modeling, 3
History of Ornament, 1
Outdoor Sketching, 3

3rd Year

Painting from Life, 6
Pen and Wash from Life, 3
Clay Modeling, 3
History of Ornament, 1
Pedagogy, 1
Outdoor Sketching, 3
Normal Teaching, 6

DESIGN COURSE

1st Year

Drawing from Cast, 6
Still Life, 6
Mechanical Drawing, 6
Anatomy, 1
Sketching from Nature, 3
Art History, 1
French or German, 2

2nd Year

Drawing from Life, 6
Water Color 6
Still Life, 6
Anatomy, 1
Design, 12
Sacred History, 1
Outdoor Sketching, 3
Applied Arts, 6

3rd Year

Painting from Life, 6
Design, 12
Clay Modeling, 3
Interior Decoration, 6
History of Ornament, 1
Outdoor Sketching, 3

ARCHITECTURE

3rd Year

Building Materials, 3
Graphic Statics, 3
Heating and Ventilation, 2
Architectural Drawing, 4
Structural Design, 3
Engineering, 3
Anatomy, 1
Clay Modeling, 3
History of Architecture, 1

4th Year

Structural Design, 3
Reinforced Concrete, 3
Interior Decoration, 3
Architectural Design, 3
Economics, 3
Contracts and Specifications, 1
Thesis

ARCHITECTURE—4 Years

1st Year

Mechanical Drawing, 6
Freehand Drawing, 6
Mathematics, 4
Chemistry, 5
Design, 2
English, 3
Outdoor Sketching, 2
Art History, 1
Mythology, 1

2nd Year

Architectural Drawing, 6
Freehand Drawing, 3
Water Color, 3
Mathematics, 3
Physics, 3
History of Ornament, 1
Civil Engineering, 3
Structural Design, 3
Anatomy, 1



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5/17

University of Southern California College of Fine Arts BULLETIN

Seventeenth
Year
Season of
1916-1917

Los Angeles
California

South Pasadena
Car to Avenue 66



DEC 2 1916

Home Phone 39086
Sunset East 1375

College of Fine Arts

University of Southern California

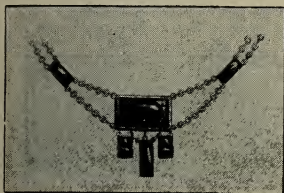
BULLETIN



Fifteenth Year

Season of 1916 and 1917





1916-1917 Calendar

Monday, September 11, 1916—Enrollment of students.

Thursday, September 14, 1916—Commencement of class work.

Christmas vacation begins December 25, Monday.

Class work resumes January 2, Tuesday.

Examinations in osteology and special branches last week in January.

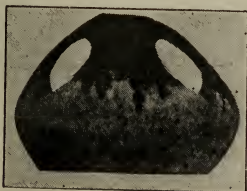
Second semester begins February 1, 1917.

Examinations in anatomy, drawing, art history, mythology and technic begin May 28, 1917.

Commencement, June 7, 1917.

Alumni reunion and banquet, June 7, 1917.

All legal holidays will be observed.





College of Fine Arts

UNIVERSITY of SOUTHERN CALIFORNIA

W. L. Judson, Dean

200 South Avenue 66

Los Angeles, California

Home Phone 39086; Sunset, Garvanza 375

Bulletin, 1916-1917

Another successful year has demonstrated the wisdom and value of the college plan of teaching art.

The fullness of the curriculum and the constant supervision of each line of work by competent teachers insures that the student will have a thorough grounding in the fundamental principles of art and the graduate will know all that an intelligent and cultured artist or teacher should know.

Our Aim

The value of a school can only be measured by its efficiency. The success of the graduates of this college in the public and private schools and studios of California and Eastern cities is ample testimony to the efficiency of our methods.

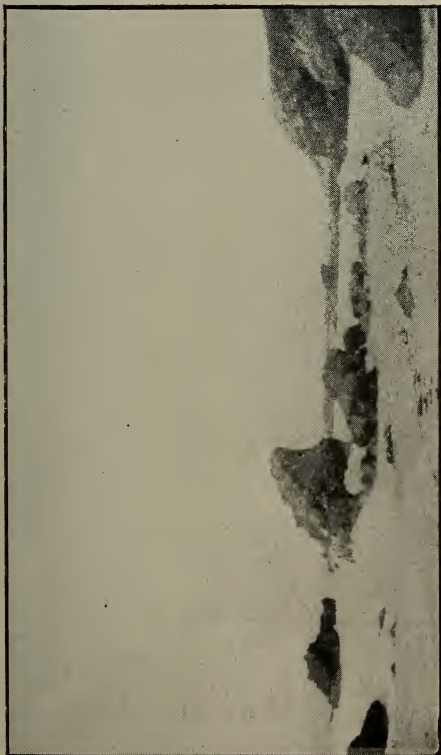
The college motto "ONLY THE BEST IS WORTH WHILE" is a compelling incentive and nothing will be spared at any time in our efforts to make the College of Fine Arts, U. S. C., the best in this country, ideal in every respect.

Location and Equipment

The special advantages of this school are many. The College of Fine Arts of the University of Southern California is situated on a cliff overlooking an unspoiled natural park, the famed Arroyo Seco, with a perennial stream and groves of magnificent trees, rocky cliffs and acres of boulders, wide stretches of oak-dotted sward, and the eternal snow-capped mountains closing every vista. Near at hand are mountain canyons, sandy beaches, rocky promontories, and an unparalled variety of race and costume for models. Probably no spot in the world of the same area offers more variety or greater abundance of paintable material, and the ideal climate permits of outdoor work almost continuously.

The buildings are handsome and commodious. There are nine large, well-lighted and well-ventilated studios; a picture gallery; an assembly room with piano; a reception room; cloak rooms and dormitories with every possible convenience. Every room is perfectly furnished for its purpose. There is an abundant equipment of sculpture, casts, designs in architecture, pottery, metal, jewelry, etc. The library contains all the standard art magazines and many volumes upon art subjects. There are also ample grounds for recreation and outdoor study.

The curriculum embraces every department of graphic and plastic art that can be learned from teachers or books. This fullness of curriculum and the constant supervision of each department of work by expert teachers, giving instruction that is largely individual, insure that the student will have a thorough grounding in the fundamental principals of art, and that the graduate will know all that an intelligent and cultured artist or teacher should know. Further, the concentrating of the third year's work on the chosen specialty insures that the students will leave college well equipped to enter the ranks of workers with assurance of success. The courses are full to the brim with interesting and varied work. No student who once enters the spirit of this school can fail to catch the enthusiasm which makes a joy of one's occupation and is the surest guarantee of success.





The Forward Movement

The rapid and revolutionary changes now taking place in business methods, in manufacturing, in advertising, in house decorating, in design all require that the teaching of commercial art must change with the times. When novelty is valued, more than tradition, it is necessary to be up-to-date and down-to-the-minute.

The purpose of the College of Fine Arts is to present to the student a practical twentieth century curriculum and teaching method embodying all that makes for efficiency with all the new-

est ideas and all based on a sound academic training of the eye, the hand and the imagination.

These things make for success and they make for stability. Competition in all lines is becoming keener every year as colleges are turning out graduates in increasing numbers. Trained specialists are taking the best places and supplanting the inefficient workers and teachers of yesterday. The cry that the professions are overcrowded is only true in the sense that they are overcrowded with incompetents.



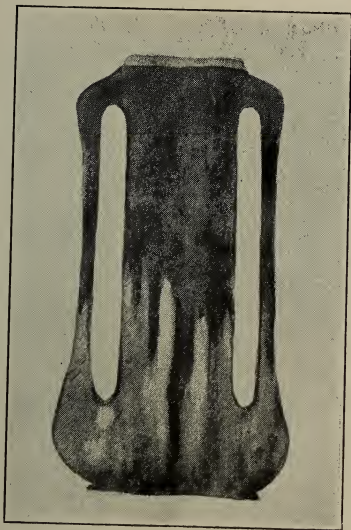
The Courses

Entrance requirements for the Teachers' Course and the courses leading to degrees: Fifteen units of high school work, uniform with requirements for admission to the College of Liberal Arts.

Advanced Standing: Credits for work done in other art schools will be allowed when satisfactory proficiency is shown.

Students may register for special branches to be taken separately. In such cases certificates of proficiency are granted on the student's passing the required examinations. Students in special branches may enter the school at any time without examination.





PAINTERS' COURSE (*Four Years*)

(*Leading to the degree of Bachelor of Fine Arts*)

First Year—Charcoal drawing from the cast; clay modeling; pencil drawing from landscape; mechanical drawing, including geometry, perspective and projection; art history and mythology.

Second Year—Composition and drawing from life of draped and nude figure, portraiture, landscape; anatomy, modeling; water color; art history, sacred history; applied design, pottery, wood carving, metal work; German or French.

Third Year—Painting in water color and oil from life and landscape; pen and wash drawings; composition; modeling; composition and design; normal teaching course; German or French.

Fourth Year—Specializing in the chosen line in painting or sculpture.



ARCHITECTURAL COURSE

Leading to the degree of Bachelor of Science in Architecture

(A special bulletin will be sent on application)

First Year—Mechanical drawing; freehand, design, outdoor sketching, anatomy, art history and mythology.

Second Year—Mathematics, building construction, nature of materials, plan drawing, perspective, water color, life drawing and history of ornament.

Third Year—Mathematics, architectural drawing, stress and strains, historic styles, clay modeling from life and water color.

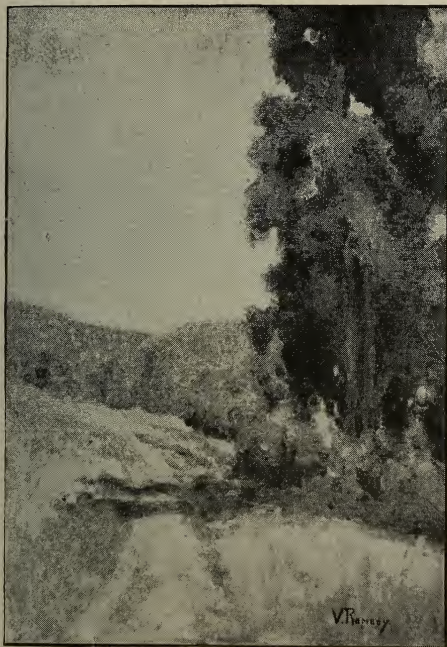
Fourth Year—Plan drawing, original design; applied perspective, practical work on buildings under construction and landscape gardening.

TEACHERS' COURSE (*Three Years*)

(*Leading to a Diploma*)

Identical with the first three years of the Degree Course, except that the requirement of French or German is omitted.

ILLUSTRATING COURSE (*Three Years*)*(Leading to a Diploma)**First and Second Years*—As in painter's course.*Third Year*—Painting in water and oil, pen and wash drawing, caricature, cartooning and composition.DESIGN COURSE (*Three Years*)*(Leading to a Diploma)**First Year*—Free hand and mechanical drawing, original design, art history, mythology.*Second Year*—Composition, color harmony, original design, anatomy.*Third Year*—Historic ornament, fabrics, interior decorating, applied design.SCULPTURE (*Three Years*)*Leading to a Diploma**First Year*—As in painters' course.*Second Year*—Modeling from life, draped and nude; portraiture; anatomy; mythology; the history of art.*Third Year*—Composition and grouping; modeling from life; casting in plaster and metal; anatomy; historic monuments.



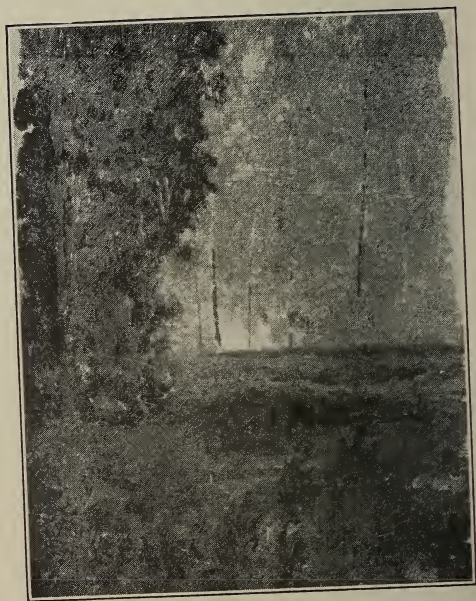
SPECIAL COURSES

Commercial Art—Advertising, design, poster painting, lettering, card writing.

Normal Art Course—Practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, stenciling, cardboard modeling, colored chalks, harmony, design, etc.

Metal Work, Brass and Iron—Hammer work, etching, chasing, piercing, mould making, casting, forging and enameling.

Landscape Painting—Drawing and painting from nature, along the lines of the Woodstock school.



Jewelry—Wire and band work, casting, chasing, jewel setting, enameling, and design.

Wood Carving—Design, the selection of woods, and the technique of carving, incising, bas-relief, and the round.

Pottery—Clay modeling, the potter's wheel, moulding, glazing, firing, underglaze painting, harmony, and design.

Mural Painting—Drawing, water color and oil painting, color harmony, composition, and practical application.

Interior Decorating—Drawing, design, color harmony, composition and the nature and uses of materials.

Art Glass—This includes design, hard-metal mounting, leading, cutting, color harmony, painting on glass, and firing.

Transient students may take any part of courses as special studies.





Summer School

A summer school is maintained, beginning about July 1st of each year.

All branches of fine and applied art are taught, the fees being about the same per month as in the full course.

Special circulars will be mailed on application.

Prizes

A gold medal is awarded to the student making the best record for the year.

A scholarship for one year is awarded to the member of the graduating class making the best record.

Frequent competitions are open to advanced students, entitling the winners to certain school privileges.





Fees and Expenses

FEES

[All-day lessons; hours 9 a. m. to 12 m.; 1 p. m. to 4 p. m.]

Full Collegiate Course.....	\$95.00
Collegiate Semester.....	50.00
Per month, six days per week.....	15.00
Per month, three days per week.....	7.50
Per month, one day per week.....	4.50
Single lessons, each.....	2.00
Laboratory fee for Crafts, per term.....	1.00
Graduation fee.....	5.00

Remarks

All fees payable in advance.

There are three lectures per week on anatomy and other art subjects free to all enrolled students, with occasional lectures by noted teachers and artists.

No charge is made for models, lockers, boards, easels, etc.

Materials are furnished to students at the lowest rates.

The school dormitories are equipped with every comfort and convenience, including facilities for light housekeeping.

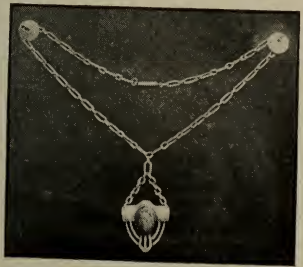
Board and lodging may be had near the school at reasonable rates.

The picture gallery is open to the public afternoons.

SPECIAL BRANCHES

When taken separately from courses

Landscape, per month, one day per week	\$6.00
In class of ten or more	
Commercial Art, per month, one day per week.....	6.00
In class of ten or more	
Pottery	4.50
Metal and Jewelry, per month, one day per week.....	6.00
Art Glass.....	4.50



Faculty

GEORGE F. BOVARD, A.M., D.D., LL.D.
PRESIDENT OF THE UNIVERSITY

WILLIAM L. JUDSON, DEAN
PAINTING AND DRAWING

AIMÉ BAXTER TITUS
COMMERCIAL ART AND LANDSCAPE
Late Vice-President Art Student's League of New York
and of Woodstock School of Landscape

MARION LEAVER, B. F. A.
DESIGN AND INTERIOR DECORATING
Graduate and Gold Medalist, University
of Southern California

GEORGE F. TAPNER, METAL AND JEWELRY
Graduate Royal South Kensington School
of London

BURT W. JOHNSON
SCULPTURE
Pupil of St. Gaudens

ARTHUR C. WEATHERHEAD, A.B., M.A.
MECHANICAL DRAWING
Graduate University of Southern California

ERNEST BRAUNTON, LANDSCAPE GARDENING
ALMA GILCHRIST, B.A., FRENCH

Assistant Teachers

LEAH TAYLOR, APPLIED ART
STELLA LAMBERT, ART HISTORY
LEONA COHN

The University

College of Liberal Arts—35th and University Ave.
George F. Bovard, A.M., D.D., L.L.D., Pres.
Roy E. Schulz, A.B., Secretary

College of Physicians and Surgeons—516 East
Washington St.
Charles W. Bryson, A.B., M.D., Dean
Walter S. Johnson, A.B., M.D., Secretary

College of Dentistry—Fifth and Wall Streets
Lewis E. Ford, D.D., Dean.
William Bebb, D.D.S., Secretary

College of Law—Exchange Bldg., Third and Hill
Streets
Frank M. Porter, A.B., LL.M., Dean
Gavin W. Craig, LL.M., Secretary

College of Theology—35th Place and Hoover St.
Ezra A. Healy, A.M., D.D., Secretary
James Blackledge, A.M., Secretary

College of Pharmacy—35th St. and University Ave.
Laird J. Stabler, M.S., Ph.C., Dean
Arthur R. Maas, Ph.C., Secretary

College of Music—35th St. and University Ave.
Walter F. Skeele, A.B., Dean
Charles E. Pemberton, Secretary

College of Oratory—35th St. and University Ave.
Beulah Wright, Dean
Gertrude Comstock, Ph.B., Secretary

College of Fine Arts—200 S. Avenue 66
William L. Judson, Dean
Iris Connor, Secretary



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UNIVERSITY OF ILLINOIS LIBRARY

JUN 13 1922

UNIVERSITY OF SOUTHERN CALIFORNIA BULLETIN

VOLUME XVII

MAY, 1922

NUMBER 3



COLLEGE OF LIBERAL ARTS
YEAR BOOK FOR 1921-1922

UNIVERSITY OF SOUTHERN CALIFORNIA BULLETIN

VOLUME XVII

MAY, 1922

NUMBER 3



COLLEGE OF LIBERAL ARTS YEAR BOOK FOR 1921-1922

WITH ANNOUNCEMENTS FOR
1922-1923

PUBLISHED MONTHLY BY THE UNIVERSITY
ENTERED AS SECOND CLASS MATTER
UNDER ACT OF CONGRESS, AUGUST 24, 1912
LOS ANGELES, CALIFORNIA

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CALENDAR

College of Liberal Arts

1922

January 2	Work resumed after Christmas recess.
January 23-28	Mid-year final examinations.
January 30-February 1	Registration for second semester.
February 2	Instruction begins.
April 7-April 16	Spring recess.
May 30	Memorial Day.
June 6-13	Final examinations.
June 15	Commencement.
July 1-August 12	Summer Session.
September 13-20	Registration for first semester.
September 21	Instruction begins.
October 4	Founders' Day
October 20-21	Special make-up examinations.
November 30-December 2	Thanksgiving recess.
December 21	Christmas recess begins.

1923

January 2	Work resumed after Christmas recess.
January 31-February 6	Mid-year final examinations.
February 12	Instruction begins.
March 9-10	Special make-up examinations.
March 26-April 2	Spring recess.
May 30	Memorial Day.
June 12-18	Final examinations.
June 21	Commencement.

DIRECTORY

THE COLLEGE OF LIBERAL ARTS
THE GRADUATE SCHOOL
THE SCHOOL OF EDUCATION
Thirty-sixth Street and University Avenue.

THE COLLEGE OF LAW
Tajo Building, First Street and Broadway.

THE COLLEGE OF DENTISTRY
Clinic Building, Sixteenth and Los Angeles Streets.
Science and Technical Building, Thirty-seventh Drive and
Exposition Blvd.

THE SCHOOL OF RELIGION (On the Maclay Foundation)
Thirty-sixth Street and University Avenue.

THE COLLEGE OF PHARMACY
Thirty-fifth Street and University Avenue.

THE COLLEGE OF MUSIC
3201 South Figueroa Street.

THE SCHOOL OF SPEECH
Thirty-fifth Street and University Avenue.

THE COLLEGE OF COMMERCE AND
BUSINESS ADMINISTRATION
Thirty-fifth Street and University Avenue.

THE UNIVERSITY HIGH SCHOOL
Thirty-fifth Street and University Avenue.

THE MARINE BIOLOGICAL STATION
Office at Thirty-fifth and University Avenue.

OFFICIAL BOARDS

THE BOARD OF TRUSTEES

Term Expires in 1922

WESLEY W. BECKETT, M.D.....	Pacific Mutual Bldg.
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Term Expires in 1923

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Term Expires in 1924

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* On leave, 1921-1922.

THE UNIVERSITY

HISTORICAL

In response to a general feeling that the interests of Christian education demanded the establishment of an institution of higher learning in Southern California, plans were early matured which resulted in the founding, in the City of Los Angeles, of the University of Southern California. On July 29, in the year 1879, the original deed of trust was executed by Ozro W. Childs, Isaias W. Hellman, and John G. Downey, donors to A. M. Hough, J. P. Widney, E. F. Spence, M. M. Bovard, G. D. Compton, and R. M. Widney, as Trustees. On August 8 of the following year, 1880, the incorporation of the University was effected under the title, "The University of Southern California." The name of the corporation has since been changed to "University of Southern California."

The first Board of Directors consisted of eleven persons, namely: A. M. Hough, Charles Shelling, E. F. Spence, P. Y. Cool, S. C. Hubbell, E. S. Chase, P. M. Green, J. G. Downey, R. M. Widney, J. A. Van Anda, and F. S. Woodcock. These, together with the Trustees and the original donors of the trust, may be fairly held to represent the founders of the University. The corporation as at present constituted consists of thirty Trustees.

The Articles of Incorporation provide that the Trustees shall be elected by the Southern California Annual Conference of the Methodist Episcopal Church.

The first building was erected on the present campus site in 1880, and on October 4 of the same year the institution was formally opened for the reception of students, and the work of instruction was begun. Men and women are admitted to all departments of the University on the same conditions.

Although requiring no particular religious faith of its instructors and students, the institution, in accordance with the fundamental aim of its founders, stands for the effective promotion of Christian culture.

THE GOVERNMENT OF THE UNIVERSITY

The government of the University is committed to a Board of thirty Trustees. This Board has the power to elect professors and other officers of instruction, to confer degrees, to manage the property of the University Corporation, and to determine the general policy of the institution.

The President, the representative of the Board of Trustees, has charge of the administration of the University,

and is chairman of the University Cabinet. The principal administrative officers, other than the President, are the Deans, who have immediate charge of the work of the several faculties.

The University Cabinet is a representative body, consisting of the President, and the Dean of each of the several schools and colleges. It is the duty of the Cabinet to consider the work offered by the several schools and colleges, to adjust all questions involving more than one of the colleges, and to advise the President upon such matters as he may bring before it.

ADVANTAGES OF LOCATION

Los Angeles is the metropolis of the Pacific Coast. Its population of over 600,000 represents every State in the Union and many foreign lands. Its importance as a political and metropolitan center gives the students of the University unusual opportunities for observation and investigation along many lines, both cultural and professional.

The climate throughout the year is such that tourists from every quarter come to spend a part of the year, and many return to make this their permanent home.

It is the greatest railroad center on the Pacific Coast. Four transcontinental lines are now complete. A network of electric roads connects the city with the numerous beaches, mountain resorts, and outlying towns. These are reached by delightful journeys through orange groves and orchards of the semi-tropical fruits characteristic of this region.

It is known as the Convention City of the West. Every year brings large bodies of people here for the discussion of every kind of public interest known to science, politics, religion, and the humanities. These great conventions afford the student an excellent opportunity to study the subjects of their discussion; and the resident population of the city is sufficiently large to afford important advantages for the study of sociology and kindred subjects.

The diverse viewpoints of the groups of students in the various colleges make their association an important cultural factor in their lives.

The University campus is in close proximity to Exposition Park, in which more than a million dollars have been recently expended in erecting and equipping buildings and beautifying the grounds. The State Building contains exhibits of the products, mineral and vegetable, of the various counties of the State. The Museum of History, Science and Art contains the valuable collections of The Historical Society of Southern California, The Academy of Sciences, The Cooper Ornithological Society, The Fine Arts League of Los Angeles, and

numerous private collections. Because of their easy access, these collections afford special advantages to the students and faculties of the University.

The fifty-five acres of the park athletic grounds are available and afford ample facilities for all outdoor sports, making a valuable auxiliary to Bovard Field with its Stadium seating over 8000.

THE FORWARD MOVEMENT

The constantly growing needs of the University during the last decade have been the object of solicitous thought on the part of the administration and plans have been projected to meet them.

The Board of Education of the Methodist Episcopal Church included the campaign of the University of Southern California as part of the great Forward Movement. The purpose was thus set to obtain an ample campus and to raise one million dollars for additional endowment. This campaign was carried to a successful issue during the spring of 1918, more than \$1,227,000 being subscribed. At the present time there is being prosecuted a second campaign for an additional fund of ten million dollars.

On March 30, 1917, the Board of Trustees announced that all the frontage on the west side of University avenue between the present campus and Exposition Park had been secured. This fixes the status of the University as a city institution and assures an adequate campus in the present highly advantageous location.

The first of a group of new buildings, known as the George Finley Bovard Administration Building, was completed in 1921. It contains the various offices of administration, social halls, an auditorium seating 2000 and numerous recitation and lecture rooms. The north wing of this building is designated as the James Harmon Hoose Hall of Philosophy in honor of Dr. Hoose, whose labors contributed so largely to the upbuilding of the University. In a similar way the south wing is known as the Thomas Blanchard Stowell Hall of Education in recognition of the work of the Dean Emeritus of the School of Education. The cost of this building is over half a million dollars. The building is of fire-proof construction and affords ample quarters for the various departments.

The organ, located in the Auditorium, is the largest in the Southwest, and with the exception of the municipal organ in San Francisco, the largest on the Coast.

GENERAL INFORMATION

The College of Liberal Arts of the University of Southern California is situated in Los Angeles, about three and one-half miles southwest from the business section of the city. The College buildings are accessible by three lines of street cars. The West Jefferson Street, the University, and the Pacific Electric lines. This is one of the most beautiful and rapidly growing residence sections of Los Angeles.

EQUIPMENT

The University Libraries. The University Libraries contain over 45,000 volumes, professional libraries being maintained at the Colleges of Law, Dentistry and Music.

The Library of the College of Liberal Arts, containing over 32,000 volumes, is located in the main building of the University. It contains also the Dean Cochran Memorial Library of over two thousand volumes placed in the University by his son, George I. Cochran. Many new volumes are added each year to meet the demands of the various departments.

The reference room contains the general reference books, the bound magazines, and a carefully selected list of current periodicals. The stack room contains the circulating books. The collateral reading rooms occupy the entire first floor of the north wing and provide ample space for study and research work.

All officers, students, and graduates of the University have free access to the library, and may draw books for home use. The shelves are open to members of the Faculty and, upon recommendation of their major professors, to students engaged in advanced work.

The library is open five days in the week from 7:50 a. m. to 5:30 p. m., and on Saturdays from 8:00 a. m. to 3:30 p. m.

The Los Angeles Public Library of over 500,000 volumes is a most valuable supplement to the facilities offered by the University Library, and is accessible to all students. The University Library is a depository of the Public Library and books as needed are brought from the Public Library for the use of the students. The County Law Library containing 51,000 volumes is also available for reference work. The resources of the University Library are supplemented by an inter-library loan system with other colleges of the State.

Civil Engineering Laboratory for Testing Materials. For the purpose of conducting series of tests in the strength of materials used in engineering construction, arrangements have been made for the use of the apparatus of the Raymond

Osborn Testing Laboratories located in the Marsh-Strong building. The equipment of this laboratory is as complete as any on the Pacific Coast. Included in the apparatus is a 200,000 pound Olsen tensile and compression machine, a cold bending machine, two cement testing machines with the necessary immersion tanks and moist closets, sand analysis apparatus and all the minor appliances for carrying on scientific tests of materials.

Physics. The laboratories of the Department of Physics are well equipped for demonstration and experimental work in elementary and advanced general physics. The equipment is all of high grade and is especially complete for work in electrical measurements, physical optics, and photometry.

Electrical and Mechanical Engineering. Typical machines and a full equipment of testing instruments are provided for the laboratory work in this department. The equipment is conveniently arranged in the basement of the north wing.

The Biological Equipment. The entire second floor of the north wing of the main building is devoted to the biological laboratories and lecture room. The four laboratories with their 110 feet of desks facing immediately to the north, are so planned that each student has abundant light. Each student is supplied with individual desk and compound microscope. Specifically, the equipment of the four laboratories is as follows:

The Zoological Laboratory contains forty-nine single desks and a large demonstration table 4x11 feet, with drawers and cupboards on each side for supplies. Each student is furnished a compound microscope, and the necessary materials for dissection and study.

The General Botanical Laboratory is thirty by forty feet. It contains double desks with drawers and lockers for each student; cupboards, sinks, aquarium; growing tables, herbarium specimens, books and supplies. A compound microscope and materials for study are furnished each student. It has south, east and north exposures.

The Plant Physiology Laboratory is well equipped for the experimental study of plants. Among the apparatus are recording instruments: klinostat, self-recording thermometer, and auxonometer. It contains an electric drying oven of the latest type, and apparatus for the study of photosynthesis and respiration.

In addition to these laboratories are research rooms and offices which are equipped with the latest improved microscopes with oil immersion objectives, camera lucida, warm

temperature stage, micrometers and other accessories for research work.

The Laboratory for Bacteriology and Physiology is 29x46 feet, facing the north. It is supplied with autoclaus, Arnold, and hot-air sterilizers, incubators, glassware, and all other necessary equipment for work in bacteriology. All the necessary materials, apparatus, including BB-8 Bausch and Lomb microscopes, are furnished the student. For Physiology the laboratory is supplied with the reagents and apparatus necessary for successful laboratory work, such as microscope, haemocytometer, etc. A complete set of the Harvard Physiological apparatus has been added. For Histology and Embryology the student is supplied with BB-8 microscope and has the use of the Minot automatic rotary microtome, Bausch and Lomb's automatic laboratory microtome, and all reagents necessary to carry on successful work.

The Biological Research Laboratory, 15x17 feet, adjoins the office of the department, which is also 15x17 feet. The equipment of these rooms is such as adapts them to advanced work along special lines. The best microscopes of German and American make are available, including Bausch and Lomb, CC-8 Zeiss IIa, with achromatic and a set of apo-chromatic objectives with compensating eye-pieces. Other microscopes of the Leitz and Spencer types, imbedding baths, centrifuge, camera, and numerous microscope accessories and instruments are provided.

The Biological Lecture Room is 32x36 feet with raised seats. It has a seating capacity of about one hundred and fifty and is provided with skylight and fitted with screens for darkening to adapt it to the use of the electric projection apparatus and stereopticon that form part of the equipment. The lecture desk, which is fitted with drawers and cupboards, can be adjusted instantly for gas or water for demonstration purposes; this room, as well as all others, is well supplied with electric lights.

The Marine Biological Station of the University of Southern California is housed in the aquarium and auditorium buildings at Venice. The research laboratory has places for five investigators, and the combined laboratory and lecture room for the summer course in marine biology will accommodate thirty students. In the large aquarium room there are forty aquaria with sides of plate glass and one large central concrete basin. A library and a reference collection of the local fauna and flora are being established.

The **Anton Dohrn**, a launch thirty-five feet over all and of ten feet beam, is used in the work of the Marine Station.

ATHLETICS AND PHYSICAL TRAINING

The Faculty of the College of Liberal Arts, recognizing that physical training is both hygienic and educative, desires to encourage every reasonable effort in the direction of physical development consistent with well-rounded manhood and womanhood. On its hygienic side physical training should aid the body in all its functions, develop a symmetrical form, correct deformity as far as possible, and afford recreation. In its educative function it should afford the discipline necessary for self-control, both mental and moral. Athletic sports are encouraged for their value in developing the body, and in furnishing a means of pleasant recreation as well as a source of social and ethical culture.

Gymnasium and Athletic Grounds. The women's gymnasium, and the men's gymnasium and basketball pavillion with seating capacity for over 2000 spectators, the tennis courts, the basketball courts, the enclosed athletic field, with its cinder path, turf football field, and the bleachers with 8200 sittings, furnish ample facilities for physical training and outdoor sports. In addition to this the University has free use of the limitless facilities provided by the immense athletic field of Exposition Park, situated adjacent to the University on the south.

Each student, on entering the department, undergoes a thorough physical examination in order that his or her physical condition may be known, and suitable exercises prescribed. The heart, lungs, sight, and hearing are examined, and the utmost caution is used in the advice given regarding individual exercises.

All athletic and team contests are under the close supervision of the director, and no student is permitted to compete in games or contests whose physical examination shows that he or she is unfit.

Any person who desires to enter athletic contests must attain a certain standard of scholarship before being permitted to participate.

DEBATING

The University provides opportunity for all who wish to engage in debating. During each season the schedule includes a number of intercollegiate debates, and in addition the Freshmen teams meet a number of other teams.

Extensive try-outs are conducted early each academic year, and prizes totaling \$60.00 are offered under the auspices of Delta Sigma Rho Fraternity, to the contestants ranking highest in "sincere and effective speaking." These men, together with others properly qualifying, represent the University in regular intercollegiate debate. (See under "Prizes.")

Bowen Foundation for Debating Prizes. Through the generosity of Mr. William M. Bowen six cups are presented annually to those students of the institution who show exceptional ability as sincere and effective speakers. The winners of the Bowen cups are chosen in a public contest open only to undergraduates. Successful contestants are also eligible to the intercollegiate debating teams of the University.

RELIGIOUS PRIVILEGES

The moral atmosphere surrounding the student is exceptionally good. The Young Men's Christian Association and the Young Women's Christian Association are active and effective in social and religious life. These Associations hold weekly meetings, open to all students. In addition to the chapel services, which are held under the direction of a faculty committee, courses of special addresses are delivered from time to time. A student prayer-meeting is held every Thursday at 7 p. m. The Young Men's Bible Class and the J. O. C., for women, meet at the University M. E. Church each Sunday morning. These privileges constitute a good Christian atmosphere in which to lay the foundation of character. Students are expected to attend some church each Sabbath, and are advised to join some Sunday class for the study of the Bible.

The University Methodist Episcopal Church is located near the campus, and is one of the most prosperous churches in the city. The Baptists, Disciples, and Presbyterians, and other denominations also have churches in the near vicinity. These advantages, together with fine public school privileges, make the University section of the city a very desirable place for the residence of families seeking educational opportunities.

THE WOMEN'S CLUB

A society of ladies interested in the welfare of the students was organized ten years ago under the name of Women's Auxiliary to supplement in all practical ways the plans of the University authorities for the comfort and convenience of the student body.

There are about one hundred members, and a meeting is held on the second Tuesday afternoon of each month. Mothers of students and ladies interested in the University are cordially invited to become members of this growing organization. The Women's Auxiliary has been reorganized as the Women's Club of the University, and has joined both the State and National Federation of Women's Clubs. In December, 1914, an Alumnae Department was formed for the purpose of keeping up the interest of women graduates in the affairs of the University, of supplying a bond of unity for the women now taking graduate work, and of furthering in all possible ways the interests of the University. Only

those women who have graduated are eligible to full membership, but any woman who has taken one year's work at the University may become an associate member.

STUDENT ORGANIZATIONS AND PUBLICATIONS

There are four literary societies connected with the College of Liberal Arts, the Aristotelian and Comita for men, and the Athena and Clionian for women. Of these, the Aristotelian and the Athena societies, which date back to the early years of the University, have large and well-furnished halls in which to hold their meetings. All of the societies are in flourishing condition. Once a week each conducts programs consisting of debates, papers, readings, music, discussions on current topics of vital interest, and drill in parliamentary law. Periodically all the societies meet in joint assembly under the auspices of the Civic League for the discussion of problems of civic interest and for the furthering of civic righteousness.

Among the students in the College of Liberal Arts are four national fraternities, ten national sororities, seven local fraternities, and three local sororities. One of the noteworthy features of these societies is their spirit of good-fellowship with those members of the student body who have no such affiliations. The Greek letter societies are under the supervision of a special Faculty committee. A system of grading by the University authorities encourages them to attain a high standard of scholarship.

"The Trojan" is a newspaper managed by a well-organized staff of undergraduates under the direction of the Department of Journalism, and devoted to news articles and announcements of events of interest to the University, and to editorial discussions of moment to the student body.

"El Rodeo" is the title of the college annual of descriptive articles, photographs, and cartoons, including all phases of the life in the College of Liberal Arts, and produced by the Junior class of each year.

FEES AND EXPENSES

Tuition, per semester, payable in advance.....\$105.00

Five dollars of the above is registration fee and is not refundable. Special rates will be made for students registering for less than ten units. Each student registering for more than the normal full course will be charged at the rate of \$10.00 for each unit in excess of the work covered by the \$105.00 charge—eighteen units for Freshmen and Sophomores, sixteen units for Juniors and Seniors.

Late Registration	2.00
This fee is charged if registration card is not stamped at the Office of the Treasurer and Comptroller before the first day of instruction.	
Diploma, all campus colleges, payable 30 days before graduation	10.00
Diploma in Social Work	5.00
Certificate in Social Work	5.00
Late Enrollment	1.00
For non-completion of enrollment within five days.	
Re-registration	1.00
For changing study-program after card is stamped.	
Laboratory, per semester:	
Assaying:	
Laboratory fee	14.00
*Breakage deposit.....	14.00
Biology, each course requiring laboratory work..	4.00
Blowpipe Analysis (Geology Department).....	2.50
Chemistry:	
Each laboratory course of one unit.....	7.00
Each laboratory course of two or three units...	14.00
*Breakage deposit per course.....	7.00
Testing Laboratory (Civil Engineering Department)	5.00
Electrical and Mechanical Engineering:	
Each unit of laboratory work.....	4.00
Physics:	
Each unit of laboratory work.....	4.00
Surveying (field work):	
One unit	2.50
Two units.....	4.00
Home Economics:	
Cookery (elementary and advanced).....	5.00
Nutrition (advanced)	1.50
Sewing (elementary and advanced)	1.00
Millinery	1.00

* Students in Chemistry deposit breakage fees of \$7.00 per course, per semester, and students in Assaying deposit breakage fees of \$14.00 per course, per semester. After the cost of goods broken is deducted the balance is refunded at the end of the year.

High School registration, per semester, or any part of a semester..... 10.00

(The registration fee is payable in advance and is not refundable. There is no tuition fee in the High School.)

School of Religion, registration, per semester for graduate students, admitted to candidacy for Bachelor of Divinity degree..... 25.00

Schedule of Discounts. (These discounts are applicable only to the tuition fee—not to laboratory or other fees. Applications must be filed at the office of the Treasurer and Comptroller. Only one discount may be applied in any case. Discounts apply only to courses consisting of more than one unit of work.)

To children of ministers in the active work of any evangelical denomination.....50%

To parents paying full tuition fees for two or more students from the same family.....10%

To public school teachers in active work.....10%

To graduate students who have received Bachelors' Degrees from the University of Southern California..... *

There are reciprocal arrangements between certain of the Colleges of the University whereby students paying for full work in one of the Colleges may take up specified work in another without additional charge. Further information may be obtained from the Office of the Treasurer and Comptroller.

Tuition is refundable only on written application and entirely at the option of the University. There will be no refund made after the middle of the semester. Any rebate allowed will be contingent upon the reason given in the application and will be figured on a scale based on actual time student is registered with the University. This scale takes into consideration the fact that there is absolutely no refund after the middle of the semester and is figured accordingly.

The University reserves the right to change any of the rates or discounts printed in this Year Book, without notice.

Board and furnished rooms can be secured in private families at reasonable rates. Other expenses incident to college life vary with the habits and circumstances of the students. They are not of necessity so great as to be burdensome to persons in moderate circumstances.

The Superintendent of Buildings and Grounds conducts a free rental bureau for the benefit of all students and has a list

* See Office of Treasurer and Comptroller.

of available rooms in the vicinity of the University Campus listed and on file. The Young Men's Christian Association and the Young Women's Christian Association conduct employment bureaus for the purpose of aiding students who are desirous of earning a part of their expenses while in college. The presidents of these Associations will be glad to answer any requests for information addressed to them.

A number of students each year find it possible to earn enough while attending the University to pay their expenses for the year. However, the University recommends that a student provide himself, if possible, with resources sufficient for the expenses of one semester before registering for full work.

SCHOLARSHIPS

The following scholarships have been founded in the College of Liberal Arts. Others contemplate the establishment of prizes and scholarships, and it is earnestly hoped that soon a considerably larger number can be offered. Friends of the University can greatly add to its usefulness in this way.

The James Hugh Johnston Scholarship was founded in perpetuity by Mrs. Anna H. Johnston of Pasadena, in memory of her deceased husband, and is for the benefit of needy students. Mrs. Johnston will name the incumbent when she desires; otherwise this will be done by the authorities of the University.

The Spence Scholarship was founded by the Hon. E. F. Spence in his lifetime, and is devoted to the use of needy students in the San Diego district of the Methodist Episcopal Church, upon the recommendation of the San Diego District Superintendent.

The A. M. Peck Scholarship was founded by A. M. Peck, of Compton.

The Ontario Scholarship is for the benefit of the Ontario High School.

The Zana T. Stevens Scholarship was founded by the Rev. F. G. H. Stevens, September 16th, 1907, in memory of Zana E. Stevens, née Terpenning, of the class of 1901. This scholarship is to be filled by a member of the J. O. C. class of the First Methodist Episcopal Church of Santa Monica, of which Mrs. Stevens was the organizer and teacher. The incumbent is to be named by the founder when he so desires, otherwise by the District Superintendent of the Los Angeles district and the authorities of the University. In case no member of this J. O. C. class is eligible, the incumbent shall

be chosen from any J. O. C. members who apply for same. In case none such apply, the incumbent shall be chosen from any women students who apply.

The A. M. Hough Scholarship was founded by Mrs. Anna G. Hough, May 7th, 1908. This scholarship is to be perpetual, and is to be used to aid some student each year in the College of Liberal Arts who is preparing to enter the ministry of the Methodist Episcopal Church. In case no such student should apply, the President of the University is authorized to use the scholarship to benefit any worthy student needing such help.

The George I. Cochran Scholarship was founded by George I. Cochran, who names the student receiving the benefit.

The Abbie Mills Scholarship was founded by Miss Abbie Mills. The scholarship is perpetual, the President to name the student receiving the benefit.

The Marion McKinley Bovard Scholarship was founded by Mrs. Anna Gould as a memorial to the first President of the University. The scholarship is perpetual. The beneficiary must be selected from eligible relatives of the first President if any such candidates apply; otherwise the President of the University may award the scholarship to any worthy student.

The Helen Miller (Gould) Shepard Scholarship was founded by Mrs. Helen Miller (Gould) Shepard. Children of missionaries are eligible for the use of this scholarship.

The Isaac Sunderland Scholarship was founded by Mrs. Kate Sunderland, September, 1912. Mrs. Sunderland, or some person designated by her, selects the student to receive the benefit of the scholarship.

The Fred W. Kelly Olympic Scholarship was founded by the friends of Mr. Kelly under the leadership of "The Los Angeles Times" in recognition of the athletic victory won by Mr. Kelly at Stockholm, Sweden, July, 1912. He represented the University of Southern California at the International Olympic contests and won the first place in the one hundred and ten meter high-hurdle race; time, 15.1 seconds. The scholarship is perpetual.

The S. P. and Helen B. Mulford Scholarship was founded by Mr. and Mrs. Mulford, August 26, 1914 (their twenty-ninth wedding anniversary), as a thank offering to their Heavenly Father. The beneficiary may be named by the founders, or either of them. In case this right is not exercised the President of the University may name the beneficiary.

The Zeta Tau Alpha Scholarship was founded by the local chapter of the Zeta Tau Alpha Sorority in February, 1917.

The beneficiary may or may not be a member of the sorority founding this scholarship. Any woman student in the College of Liberal Arts is eligible. Application for the use of this scholarship should be made to the President of the University, who, in consultation with the Zeta Tau Alpha Sorority, will make the selection.

The Rhodes Scholarship. Attention is called to the opportunities presented by the scholarships founded by the late Cecil Rhodes, of South Africa. Each of these is worth \$1500 per year for three years, the term to be spent at Oxford University. To be eligible to appointment candidates must pass a qualifying examination. Full particulars will be given on application to the Rhodes Scholarship Committee of the Faculty of Liberal Arts.

The John Thompson Memorial Scholarship was founded by the Baraca Class of the First M. E. Church of South Pasadena in memory of John Thompson, a former member of the class. It consists of one year's tuition in the College of Liberal Arts, the incumbent to be the man in the Senior Class of the South Pasadena High School who has made the highest record for scholarship for four years. The teacher of this class is Mr. Charles E. Carver, a graduate of the University.

The Charles William Paddock Scholarship was established by the Board of Trustees of the University in recognition of the athletic prowess of Mr. Paddock at the Inter-Allied Games, June 22 to July 6, 1919, at Pershing Stadium, Joinville-le-pont, France. He won the one hundred meter dash, June 29, time, 10 $\frac{3}{4}$ seconds, and the two hundred meter dash, July 1, time, 21 $\frac{3}{4}$ seconds. In the eight hundred meter relay he ran the first lap of two hundred meters in 21 seconds, the fastest time ever made in the relay. This relay was won by the American team on July 3, in the world's record time of one minute, 30 $\frac{1}{2}$ seconds. The scholarship is perpetual.

The Mrs. Emma S. Davis C. S. B. Scholarship for Women was founded July 1, 1920, by the executrix for the estate of the late Mrs. Emma S. Davis, in accordance with the wishes of the latter. Interest at six per cent on a fund of fifteen hundred dollars is available for the beneficiary, who is to be appointed by the executrix or her heirs. In case no appointment is made in this manner the President of the University may name a student to use the scholarship. Any woman student who meets the entrance requirements as to character and scholarship is eligible.

Scholarships in Biology. A series of scholarships each worth \$100 per year and laboratory fees in Biology. At present two are offered in Zoology, two in Botany, one in Bacteriology, one in Marine Biology. Applications to be made in advance to the Department of Biology.

The Pond Scholarship was founded by Mrs. N. F. W. Pond. The beneficiaries shall be of Oriental descent and must be satisfactory candidates for work in mission fields.

JUBILEE ENDOWMENT FUND SCHOLARSHIPS

During the Jubilee Endowment Campaign of 1918 the following Scholarships were founded. Interest on the funds donated to the University is credited perpetually or for a period of years (depending on the size of the gift) to the accounts of the students named as beneficiaries.

Perpetual Scholarships

William C. Kolkhorst and Wife Scholarship Fund. William C. Kolkhorst, donor.

Marshall L. Hazzard Scholarship Fund. Marshall L. Hazzard, donor.

A. E. Beckes Scholarship Fund. A. E. Beckes, donor.

Elsie M. Barnett Memorial Scholarship Fund. Mr. and Mrs. Z. T. Barnett and Mr. M. Bassett, donors.

Mr. and Mrs. Charles G. Anderson Scholarship Fund. Mrs. Charles G. Anderson, donor.

Santa Barbara Grace Church Scholarship Fund. Santa Barbara Grace Church, donor.

Mr. and Mrs. R. O. Deacon Scholarship Fund. R. O. Deacon, donor.

Harry W. Vermilion Scholarship Fund. Mrs. L. Vermilion, donor.

Lillian Vermilion Scholarship Fund. Mrs. L. Vermilion, donor.

Frank and Sadie Thompson Scholarship Fund. F. F. Thompson, donor.

Sanger Methodist Scholarship Fund. Sanger Methodist Church, donor.

Cooper Shapley Scholarship Fund. Cooper Shapley, donor.

Mr. and Mrs. F. M. Parrish Scholarship Fund. F. M. Parrish, donor.

Mr. and Mrs. Webster Potter Scholarship Fund. J. Webster Potter, Mrs. Webster Potter, donors.

Mr. and Mrs. W. T. Pitman Scholarship Fund. Mr. and Mrs. W. T. Pitman, donors.

Theodore Shaffer Scholarship Fund. Lillie Shaffer Moore, donor.

George N. and Hattie V. King Scholarship Fund. George N. and Hattie V. King, donors.

Mr. and Mrs. Fred Stebler Scholarship Fund. Fred Stebler, donor.

Mr. and Mrs. C. J. Walker Scholarship Fund. C. J. Walker, donor.

Mr. and Mrs. C. J. Walker Scholarship Fund. Carrie D. Walker, donor.

Charles K. Richardson Memorial Scholarship Fund. Geo. M. Richardson, G. L. Richardson, Frank Richardson, G. S. Faulkner, Mrs. Alpha Ayers, F. A. Shipley, donors.

Teague Scholarship Fund. C. C. Teague, donor.

The Hopper Scholarship Fund. S. D. Hopper, donor.

Jacob Shideler Scholarship Fund. Jacob Shideler, donor.

Isaac J. Reynolds Scholarship Fund. Isaac J. Reynolds, donor.

Mr. and Mrs. George L. Hazzard Scholarship Fund. Geo. L. and Mary A. Hazzard, donors.

Josephine Howard Scholarship Fund. Maud Josephine Howard, donor.

Twenty-year Scholarships

Mark Q. Watterson Scholarship Fund. Mark Q. Watterson, donor.

Frank W. Dunlop Memorial Scholarship Fund. Luella D. Kimball, donor.

Sanborn Scholarship Fund. Anna M. and L. H. Sanborn, donors.

Margaret Smith Scholarship Fund. Edith M. Smith, donor.

Stanfield Scholarship Fund. D. A. Stanfield, donor.

A. G. Wallis Scholarship Fund. A. G. Wallis, donor.

B. A. Rapp Scholarship Fund. B. A. Rapp, donor.

Lawson M. La Fetra Scholarship Fund. Mrs. Lawson M. La Fetra, donor.

Minnie Elizabeth Mendenhall Scholarship Fund. M. E. Mendenhall, donor.

Moore Scholarship Fund. A. H. Moore, donor.

Levi D. and Mary B. Johnson Scholarship Fund. Levi D. and Mary B. Johnson, donors.

D. W. Huffman Scholarship Fund. D. W. Huffman, donor.

Henry Hambden Holmes Memorial Scholarship Fund. Margaret J. B. Holmes, donor.

Hammer Scholarship Fund. P. W. Hammer, donor.

Lawrence Hall Scholarship Fund. R. T. Hall, donor.

Homer Monroe Dawley Scholarship Fund. Isaac Dawley, donor.

John A. Copeland Scholarship Fund. John A. Copeland, donor.

C. C. Barr Scholarship Fund. C. C. Barr, donor.

O. H. Barr Scholarship Fund. O. H. Barr, donor.

Betts-Oliver Scholarship Fund. Will A. Betts, John Oliver, donors.

Balcom Scholarship Fund. Miles Balcom, donor.

Mr. and Mrs. Merle N. Smith Scholarship Fund. Mae Wolfe Smith, donor.

Anderson Scholarship Fund. J. E. Anderson, donor.

Mr. and Mrs. R. L. Churchill Scholarship Fund. R. L. Churchill, donor.

Mrs. Eliza Watterson Scholarship Fund. Eliza Watterson, donor.

Fund to be named later. W. J. Naftel, donor.

De Bolt Scholarship Fund. F. H. De Bolt, donor.

Fred M. Smith Scholarship Fund. Fred M. Smith, donor.

Margaret and Isabelle Hamilton Scholarship Fund. Margaret and Isabelle Hamilton, donors.

Mr. and Mrs. J. P. Livoni Scholarship Fund. Mr. and Mrs. J. P. Livoni, donors.

Harris Scholarship Fund. A. R. Harris, donor.

Royal Plummer Scholarship Fund. Martha S. Plummer, donor.

Ten-year Scholarships

Mr. and Mrs. John Hedley Scholarship Fund. John Hedley, donor.

Alice F. Woodsum Scholarship Fund. S. T. Woodsum, donor.

Special Eight-year Full Scholarship

Kaufman and Claypool Scholarship Fund. Martha D. Kaufman and Emma L. Claypool, donors.

PRIZES

The Lottie Lane Prize, established by Mrs. Charlotte A. Thompson as a memorial to a deceased daughter, is an elaborate gold medal to be presented each year at Commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole college course. Students who have taken more than four academic years to complete the course, and those who have received credits for work done elsewhere than in this College, are not eligible for this prize. This medal was awarded in 1921 to Gertrude Virginia Gilmor.

The University Oratorical Prize of a one-semester scholarship in the junior or senior year of the College of Liberal Arts (value, seventy-five dollars) is offered to that student who represents the University in the annual Intercollegiate Oratorical Contest; and an additional one-semester scholarship in the junior or senior year is awarded if the said representative wins first place in the Intercollegiate Contest. The scholarship is not transferable.

The Intercollegiate Prohibition Oratorical Contest Prize of one semester in the junior or senior year of the College of Liberal Arts (value seventy-five dollars) is offered to that student who represents the University in the annual Intercollegiate Prohibition Oratorical Contest; and an additional one-semester scholarship in the junior or senior year is

awarded if the said representative wins first place in the Intercollegiate Prohibition Contest. The scholarship is not transferable.

Bowen Foundation for Debating Prizes. See debating.

Alpha Zeta chapter of Alpha Kappa Psi offers a cup as a prize to the man having the highest scholastic standing in the freshman class of the College of Commerce. The awarding of the prize is under the supervision of the Scholarship Committee of the College of Commerce. The first prize is to be awarded on the basis of the work of the school year of 1922-23.

For further information address
UNIVERSITY OF SOUTHERN CALIFORNIA
Los Angeles, California

ADMISSION TO THE UNIVERSITY

I. ADMISSION FROM SECONDARY SCHOOLS

A candidate for admission to the University of Southern California for the purpose of pursuing one of the regular Undergraduate Courses must qualify (1) for admission to freshman standing, and (2) for admission to the undergraduate course of his choice.

ADMISSION TO FRESHMAN STANDING

a. By credentials from an accredited California high school. A graduate of an accredited high school in California may be admitted to freshman standing without examination provided the following requirements are satisfied:

1. The applicant must be duly certified as a graduate of a California high school.
2. The applicant must have completed a four-year high school course covering at least fifteen standard units of preparatory work, including the requirements for graduation prescribed by the California State Board of Education.*
3. The applicant must present a certificate of recommendation signed by the high school principal stating that the applicant in the opinion of the principal is fitted to undertake college work by reason of character, ability, purpose in life, and scholarship.

b. By credentials from high schools in other states and from private schools. Applicants for admission from accredited high schools in other states and from accredited private schools will be held to the admission requirements under (a) above, or to the equivalent of such requirements as determined by the Faculty Committee on Credentials.

* A resolution of the California State Board of Education directs that all public high school curricula in California require for graduation after July 1, 1920, the following: English, 2 units; United States history and civics, 1 unit; laboratory science, 1 unit; and all such curricula must be so organized as to include two majors of at least 3 units each—a major consisting of three years of study in one of the following groups: (1) English (in vocational courses 1 unit of citizenship may be included with 2 units of English to make one major); (2) mathematics, including mechanical drawing; (3) history and social science; (4) physical and biological sciences; (5) foreign language—3 or more units in one language, or 2 units in each of two languages.

c. **By examination.** Alternatives for admission by credentials are (1) the passing of entrance examinations in fifteen units of preparatory subjects approved by the Faculty Committee on Credentials, and (2) the combination of credentials and the passing of entrance examinations in subjects not covered by credentials from an accredited school.

ADMISSION TO UNDERGRADUATE COURSES

A student admitted to freshman standing in the University may not be qualified to undertake immediately the work of the undergraduate course of his choice because of deficiencies in preparatory subjects prescribed for that particular course. A student may remove such deficiencies by completing the corresponding courses offered in the University, by examinations, or by other means approved by the faculty.

It is important to note that the removal of deficiencies in preparatory subjects after admission to freshman standing may make it necessary for the student to prolong his college course beyond the normal number of semesters. For this reason a student planning to enter the University of Southern California should plan his high school course with a view to meeting not only the requirements for freshman standing, but also the requirements for admission to the undergraduate course of his choice.

Required Preparatory Subjects for Undergraduate Courses

For the course leading to the degree of Bachelor of Arts (College of Liberal Arts):

English	2 units
A Foreign Language.....	2 units
A Laboratory Science.....	1 unit
Algebra	1 unit
Geometry	1 unit
United States History and Civics.....	1 unit
Electives (of which not more than three may be in vocational subjects)	7 units

For the course leading to the degree of Bachelor of Science in Engineering (College of Liberal Arts):

English	2 units
A Foreign Language.....	2 units
Chemistry	1 unit
Physics	1 unit
Elementary Algebra.....	1 unit
Advanced Algebra.....	1 unit
Plane Geometry.....	1 unit
Trigonometry and Solid Geometry.....	1 unit
United States History and Civics.....	1 unit
Electives	4 units

For the **Pre-Legal Course** (College of Liberal Arts).

(See subjects listed as required preparatory subjects for the course leading to the degree of BACHELOR OF ARTS.)

For the **Pre-Medical Course** (College of Liberal Arts).

(See subjects listed as required preparatory subjects for the course leading to the degree of BACHELOR OF ARTS.)

For the first two years of the course in **Mining Engineering** (College of Liberal Arts).

(See subjects listed as required preparatory subjects for the course leading to the degree of BACHELOR OF SCIENCE IN ENGINEERING.)

For the course leading to the **Diploma in Speech** (School of Speech).

The subjects required for admission to the course leading to the degree of Bachelor of Arts (College of Liberal Arts).

For the course leading to the degree of **Bachelor of Letters** (School of Speech).

The subjects required for admission to the course leading to the degree of Bachelor of Arts (College of Liberal Arts).

II. ADMISSION TO ADVANCED STANDING

Admission to advanced standing is by specific action of the Committee on Credentials and Registration, who will evaluate credit presented and determine the standing of the candidate.

1. Students from other institutions of recognized collegiate rank, including Junior Colleges with well established courses, may be admitted to such standing and upon such terms as the Faculty may deem equitable. Every such candidate is required to present a catalogue of the institution in which he has studied; a full statement, duly certified, of the subjects he has there completed and of the subjects there presented for entrance; and a letter of honorable dismissal. The Faculty reserves the right to determine, after a test of at least one semester, the amount of credit that the applicant may receive.

Students from accredited Junior Colleges may receive tentative advance credit up to a maximum of 64 units.

2. Graduates of approved state normal schools whose normal school course has been preceded by a full four-year high school course or whose combined normal school and high school work covers six years of work, may ordinarily be granted forty-eight units of advanced standing. The amount of advanced standing granted the recommended graduates of the California state normal schools, beginning with the graduating classes of 1921, may be extended to sixty units, provided in the judgment of the Committee on Credentials the work completed is substantially equivalent to the work of the lower division of the University.

III. ADMISSION TO GRADUATE COURSES

Admission to the Graduate School of Arts and Sciences and to candidacy for advanced degrees is by action of the Council on Graduate Study and Research. Application should be made to the Dean of the Graduate School, when a full statement of degrees received and undergraduate work completed should be made and credentials presented. See complete statement under Graduate School of Arts and Sciences.

IV. ADMISSION AS SPECIAL STUDENTS

Candidates for Admission as Special Students must be persons of mature age who desire to take up special work in one department, or in one subject with its related branches. Such special students are not candidates for a degree; but they may become candidates by satisfying the entrance requirements for a regular course. Such students come under the same regulations as regular undergraduates, and forfeit their privileges by failure to maintain a good standing.

THE UNDERGRADUATE ARTS COURSES

The College offers regular undergraduate courses with major subjects as follows: Art, Biology (Zoology or Botany), Chemistry, Economics, Education, English, French, German, Greek, History, Home Economics, Latin, Mathematics, Philosophy, Physics, Physical Education, Political Science, Psychology, Religious Education, Sociology, and Spanish. Each of these courses is designed to give a liberal education, extends through four years, and leads to the degree of Bachelor of Arts.

Each course requires completion of one hundred and twenty units of college work, exclusive of the requirements in Physical Education. In this connection a "unit" means one exercise a week throughout a semester, each exercise to represent, for the average student, one hour of recitation or lecture, and two hours of preparation or of subsequent reading per week, or an equivalent amount of work in laboratory courses.*

Lower Division courses are usually to be taken in the Freshman and Sophomore years and Upper Division courses in the Junior and Senior years. Sixteen units per semester for the Lower Division and fourteen for the Upper Division is considered full work.

Not later than the beginning of the Junior year every student shall make choice of the department in which he desires to pursue his major course. His work will thereafter be under the direction of that department. It is advisable that this choice be made as soon after matriculation as possible, so that the entire work of the student may be properly planned.

Requirements for Degree of Bachelor of Arts

The following work must be completed in candidacy for the degree of Bachelor of Arts:

A. Junior Standing Requirements. To be completed by the end of the Sophomore year.

English 1. One year; six units.

Science. One year; eight or ten units. The science may be Chemistry, Physics, Botany, or Zoology.

Foreign Languages. Two years; sixteen units. The language may be Latin, Greek, German, French, Spanish, or Italian. If the language offered for entrance is continued, the requirement is reduced to six units.

Psychology. One semester; three units.

*Physical Education. Two years; two hours per week, not counted toward the 120 units of required work.

B. General College Requirements. Twelve units from two of the following groups other than the group in which the student's major subject is included. 1. Mathematics; 2. Sociology, Economics; 3. History, Political Science; 4. Philosophy, English Bible.

C. The requirements of the major department.

D. A minor subject, approved by the major department.

E. Elective courses, to be selected by the student with the advice of his major professor, sufficient to complete the required 120 units.

F. It is also required that thirty-six of the units completed during the Junior and Senior years shall be in Upper Division courses.

Options in the Professional Schools

Law.—A student who has completed ninety-four units of undergraduate work, including required work in the major department and all general college requirements, so as to be entitled to enter the Senior year of the College of Liberal Arts, University of Southern California, may enter the first year class at the College of Law and may receive the degree of Bachelor of Arts upon the satisfactory completion of two years' work in that college, and may receive the degree of Juris Doctor upon graduation from the College of Law.

Music.—The Bachelor of Arts degree is granted to students who have completed ninety-four units, exclusive of any units in music, in the College of Liberal Arts and who have also

* Candidates receiving their degrees after January, 1923, will be required to complete 124 units of college work in which will be included the work in Physical Education.

completed the Public School Music course in the College of Music. The ninety-four units shall include (a) a major of twenty-four or more units, (b) a minor of twelve units, and (c) all other work required of regular Liberal Arts students.

Speech.—The Bachelor of Arts degree is granted to students who have completed ninety-four units, exclusive of any units in oratory, in the College of Liberal Arts and who have also completed the Diploma Course in Speech. The ninety-four units shall include (a) a major of twenty-four or more units, (b) a minor of twelve units, and (c) all other work required of regular Liberal Arts students.

Pre-Legal Course

One year (thirty units) of work in the College of Liberal Arts is required for admission to the School of Law.

Beginning with the Fall Quarter of 1922 two years of pre-legal work (sixty units) will be required.

It is recommended that this pre-legal course include:

First Year

English 1, 6 units; a Foreign Language, 5 or 3 units; Economics 1, 6 units; Public Speaking, 4 units; History 2 or 13-14, 3 units; Physical Education 1, 2 units; Electives, 2 to 6 units; total 18 units per semester.

Second Year

English 50, 4 units; Science, 8 or 10 units; Philosophy 51, 3 units; Psychology 1, 3 units; Foreign Language, 6 units unless completed in freshman year; Political Science 1, 4 units; Public Speaking 104, 4 units; Physical Education 2, 2 units; Electives, 0 to 8 units; total 18 units per semester.

It is strongly recommended that students take a three year pre-legal course and thus qualify for the A.B. and J.D. degrees.

Pre-Medical Course

The minimum requirements for entrance to standard Medical Colleges, as prescribed by the American Medical Association, include the following subjects.

English 1—Freshman English.....	6 units
Chemistry—Including organic Chemistry.....	12 units
Zoology 1	8 units
Physics 1—General Physics.....	8 units
French or German.....	16 units
Electives	10 units

60 units

An additional year and certain other specific requirements are made by many medical colleges so that students should consult the catalogue of the institution of their choice before arranging their pre-medical work.

The Courses in Engineering

The courses in the Department of Architecture, Civil Engineering, Electrical Engineering, Mechanical Engineering, Mining Engineering and Industrial Chemistry are more extensively technical than the Art courses just described. The courses therefore differ from the foregoing in their greater rigidity of outline, and in the increased amount of hours assigned to the work of the various years. These technical courses lead to the degree of Bachelor of Science. For a description of the work, together with the full outlines of the required courses, see articles on Engineering Courses as indicated in the index.

LIBRARY SCHOOL

The Library School of the Los Angeles Public Library conducts a nine months' course of instruction in Library Science, for which credit may be allowed by the Credentials Committee toward the degree of Bachelor of Arts in the University of Southern California.

The object of the school is to give well-rounded preparation for library work. The curriculum includes lectures, class discussions and practice problems in the fundamentals of library technique, library administration, and bibliography. The Los Angeles Public Library system, with its large collection and well organized branches offers exceptional opportunities for the supervised practical work which is a feature of the course. Regular students who wish to become school librarians or children's librarians are given the opportunity to specialize in these branches. A certificate is given those who complete the course with satisfactory standing.

Classes commence in October. It is not possible to enter at any other time.

Students are advised to take as much academic work as possible before entering the library school. Subjects which make the best foundation for library work are English, History, Economics, Sociology and modern languages.

A circular giving full information about the Library School may be obtained by addressing: Principal, Library School, Los Angeles Public Library.

CLASSIFICATION OF STUDENTS

Students of the College of Liberal Arts are divided into two groups on the basis of the nature of the work pursued. The Lower division includes the first two years of college work, which continues the broad cultural work begun in the high school and lays the foundation for the more specialized work that is to follow. The upper division includes the last

two years of college work and is given to a more intensive study in one field or department, supplemented by work in related subjects.

For convenience in administration students are classified as follows:

Freshmen: Those who have completed less than 31 units of work.

Sophomores: Those who have completed 31 to 61 units of work.

Juniors: Those who have completed 62 to 92 units of work.

Seniors: Those who have completed 93 or more units of work.

Students in Engineering and other more specialized courses will be classified as Sophomores, Juniors, or Seniors, upon the completion of nine-tenths or more of the work outlined for the year preceding the respective years.

REGISTRATION

Every student is required to register in person at the office of the Registrar before entering upon his college work. The registration days for each semester are announced in advance and any student not registered at the close of the first week of the semester is subject to a fee of two dollars for late registration and a reduction in the number of units of work he is permitted to carry.

Before registering every student entering the University for the first time must have submitted to the Registrar a transcript of his high school credits, accompanied by a letter of recommendation from the principal under whom he completed his work, and to have received from the Registrar's office a statement that his entrance credits are acceptable or the conditions under which he is permitted to register for freshman work.

Upper Division students are required to confer with and to have their study programs approved by the professors of their major subjects, who are their advisers during the junior and senior years.

A Board of Lower Division Advisers, consisting of members of the regular faculty, is appointed by the Administration to direct the enrollment of freshmen and sophomores. Lower division students will be assigned to advisers with whom they must confer in the arranging of programs and to whom they may go for advice in any problems connected with college life. A lower division student, as soon as he announces the selection of a major study, will be assigned to an adviser connected with the department in which he wishes to major.

No lower division student may be registered for more than eighteen hours, including Physical Education, and no upper division student for more than sixteen hours, without the special permission of the Committee on Scholarship. This permission is not granted to any student in his first semester of residence. Petitions to the Committee on Scholarship must bear the signature of the student's adviser before they will be given consideration.

Changes in registration may be made only through the Registrar's Office on blanks specially provided. The student must secure the written approval of his adviser before any change will be made at the Registrar's Office. Any change in a student's study program after the close of the first two weeks of the semester will involve a fee of one dollar. No changes of registration or new registrations are permitted after the close of the second week of regular college work. A course dropped without permission of the instructor and the student's adviser is regarded as a failure and so recorded. Permission to withdraw, without "failure," from any course may be granted by the Scholarship Committee upon written application by the student.

A student engaging in extra-curricular activities or outside work which limits his time and exhausts his energy is subject to a corresponding limitation in the number of units he may carry in regular college work. Prescribed studies and work necessary to remove conditions take precedence over elective studies. Lower division courses pursued by upper division students may involve either additional work or reduction in the number of units of credit.

ATTENDANCE, EXAMINATION AND GRADES

Students are expected to attend all the exercises of the courses for which they are registered. Absences are counted from the day on which instruction begins, and are reported by instructors to the Registrar's Office. Absence from class work for any course is a loss to the student and is so considered by instructors in making out their reports.

Regular examinations are held at the close of each semester in the studies that have been pursued in the different classes. At the end of the semester a report is issued by the office giving the student's standing in each subject for the semester.

Scholarship Grades are indicated by letters, as follows:

A, B, C, D, passing grades.

Con. Conditional, work not up to passing grade.

Inc. Incomplete, indicating that while the work done is of passing grade, certain portions remain uncompleted.

F. Failure. Credit can be given only upon repetition of the course.

If the student is reported "conditioned" or "incomplete," such delinquency must be made up in such manner as the instructor may determine, within one year from the date thereof. If the delinquency be not thus made up, the student may be required to take the subject again with a class, before credit in said subject may be obtained.

It is the general practice of the members of the faculty to so distribute grades as to approximate the "Biological Law"; thus it is expected that average achievement will be represented by a "C" grade.

Grade points are estimated as follows: For each unit of A grade, 3 points; of B grade, 2 points; of C grade, 1 point; of D grade, 0 point. 124 points are required for graduation.

Probation. Any student receiving F or Con., in one-third or more of the work carried in any semester, may continue his work the following semester only by special permission of the Committee on Scholarship, and will be placed on probation. A second such failure or unsatisfactory report during the semester while on probation will result in dismissal. No student while on probation may take part in any intercollegiate contest or represent the University in any public manner, either as an individual or as a member of any organization.

Students may also be placed on probation as a disciplinary measure.

Special examinations. A fee of two dollars is charged for the following special examinations:*

1. Examinations for college entrance not taken at the regular time.
2. Examinations for college credit on work for which special credentials cannot be supplied.
3. Examinations to make up mid-semester or final examinations, whether the delinquency is caused by failure to pass or by absence.

The dates of these special examinations are announced in the Calendar.

ASSEMBLY

By united action of both faculty and students attendance at Assembly is required. Seats are assigned on registration, and students must be in their seats by the singing of Alma Mater. After that the general public may occupy the vacant seats. Egress from chapel during the hour is counted

* Instructors are authorized to give such examinations only on presentation of the Treasurer's receipt for the fee in question.

as an absence, and an excess of absences will make necessary an additional number of units for graduation.

The Tuesday Assembly is in the main, of a religious character, and leading ministers and lecturers of all denominations are among the speakers. Thursday is kept more especially for educational features and for student activities.

GRADUATION

Requirements. Upon the completion of one hundred and twenty-four units, including all the general college requirements and the satisfaction of the requirements in Physical Education, the student may be granted the degree of Bachelor of Arts, **provided**, that at least one academic year shall have been spent in residence in this University and that at least 124 grade points have been received.

The degree of Bachelor of Science in Engineering will be given upon the completion of the required courses in Engineering, provided that at least one academic year shall have been spent in residence in this College and that a satisfactory standard of scholarship shall have been maintained.

Graduation with Honors.—Students may be graduated cum laude or magna cum laude under rules established by the Scholarship Committee.

Engineering students may be graduated "with distinction" under rules established by the Committee on Engineering.

Under no circumstances will these honors be conferred upon a student who has spent less than two full years in this University.

THE GRADUATE SCHOOL

HISTORICAL STATEMENT

During the academic year 1910-11 the Graduate Department of the College of Liberal Arts was formally organized. General oversight of the Department was intrusted to the Graduate Council, which was appointed from the Faculty by the President of the University. The members of the Graduate Council for its first year were: James Harmon Hoose (Chairman), Rockwell D. Hunt (Secretary), Thomas B. Stowell, Edgar M. von Fingerlin, Gilbert E. Bailey, and James Main Dixon.

The Graduate Council has been enlarged from time to time: during the year 1921-22 it has comprised eighteen members, the administrative officers being Rockwell D. Hunt (Dean) Chairman, and John H. Montgomery, (Registrar) Secretary.

In order more adequately to meet the increasing demands of qualified candidates and to provide enlarged opportunities for graduate study and scholarly investigation, the Board of Trustees of the University at its meeting held January 27, 1920, authorized the organization of the Graduate School of Arts and Sciences. At a meeting of the Board held February 24, 1920, Professor Rockwell D. Hunt, Chairman of the Graduate Council, was appointed Dean of the Graduate School and duly authorized to proceed with its further organization.

PURPOSE

The main purposes of the Graduate School of Arts and Sciences are as follows: (1) To give due prominence to graduate courses of instruction offered by the University; (2) to insure systematic and efficient administration of this advanced work; (3) to provide separate instruction and enlarged opportunities in advanced studies and research work for graduate students.

THE COUNCIL ON GRADUATE STUDIES AND RESEARCH

Beginning February, 1922, the Council on Graduate Studies and Research consists of the following members of the faculty:

RUFUS BERNHARD von KLEINSMID, Sc. D.
President of the University

ROCKWELL D. HUNT, Ph.D., Chairman

J. H. MONTGOMERY, M.S., E.E., Secretary

HERBERT D. AUSTIN, Ph.D.

EMORY S. BOGARDUS, Ph.D.

JAMES M. DIXON, L.H.D.

JOHN J. FISHER, D.D.

RALPH T. FLEWELLING,
S.T.B., Ph.D.

ALLISON GAW, Ph.D.

CLARENCE V. GILLILAND,
A.M., D.D.

JOHN G. HILL, Ph.D.

ROY MALCOM, Ph.D.

CHARLES E. MILLIKAN, LL.M.

ARTHUR W. NYE, M.E.

SAMUEL RITTENHOUSE, Ph.D.

LESTER B. ROGERS, Ph.D.

DON FELIPE M. DE SETIÉN,

Lic. en S. and P.

LAIRD J. STABLER, Ph.C., Sc.D.

D. VICTOR STEED, Ph.D.

JOHN W. TODD, Ph.D.

Its functions are: (1) To define conditions of admission to the Graduate School; (2) to provide courses of graduate instruction, and to pass judgment upon the graduate courses offered by the respective departments, no one of which courses shall become operative without the approval of the Council; (3) to pass upon the credentials of all candidates for graduate standing; (4) to establish and to maintain the requirements for all graduate degrees; (5) to recommend regulations for the effective organization and administration of the Graduate School.

ADMISSION TO THE GRADUATE SCHOOL

Admission to the Graduate School is granted to graduates of the College of Liberal Arts of this University and to graduates of other colleges and scientific schools of recognized standing who present satisfactory evidence of character and qualifications. Other persons of suitable age and satisfactory attainment may be admitted to the advantages of the graduate courses upon approval by the Council. Admission to the courses of the Graduate School does not in itself imply admission to candidacy for a graduate degree.

An undergraduate student who is within 24 units of the bachelor's degree may be permitted, with the approval of the Council and the major professor, to take graduate courses, provided that he be not carrying more than 12 units of undergraduate work. Such a student may register for only sufficient graduate work to bring the total number of units carried to 15. In all such cases a student should at the opening of the semester petition the Council for admission to the graduate courses he desires to take. If such a student afterwards matriculates for the degree of Master of Arts, the graduate courses previously taken by him are entered as "already completed" in this curriculum.

The steps required for admission to the Graduate School are: (1) Consultation with the Dean; (2) consultation with the head of the department in which the student desires to do his major work. At the time of making application the student should present his credentials, including (1) his baccalaureate diploma; (2) certified transcripts from the records of institutions previously attended, listing all his preceding courses with their unit-values and the grades attained. If the required documents are not immediately at hand registration is merely tentative, pending their presentation.

DEPARTMENTS OF GRADUATE STUDY

The University at present offers courses for graduate credit in the following departments: Art, Biology, Chemistry, Economics, Education, Engineering (Civil, Electrical, and Applied Mathematics), English, French, Geology, German, Greek, History, Home Economics, Latin, Mathematics, Oriental Studies, Philosophy, Physical Education, Physics, Public Speaking, Political Science, Psychology, Religion, Sociology, Spanish, Zoology.

The following departments offer regular major work for the Master's degree: Biology, Chemistry, Economics, Education, English, French, History, Home Economics, Latin, Mathematics, Philosophy, Physical Education, Physics, Political Science, Psychology, Religion, Sociology, and Spanish.

THE DEGREE OF MASTER OF ARTS

The attainment of the degree of Master of Arts (A.M.) depends upon the completion of a well-rounded and carefully organized undergraduate and graduate course, at the end of which the candidate shall offer proof of high and sound intellectual attainment in his major subject, together with maturity of thought and some breadth of view. The master's degree will not be conferred until the candidate has completed, beyond this University's requirements for the bachelor's degree, twenty-four units of graduate work, inclusive of the thesis; but the mere satisfaction of any time or course-unit requirement, taken by itself, confers upon the candidate no right to the degree, his achievement of it depending mainly upon his natural abilities and his stage of scholarly advancement. Graduate courses taken at other institutions are recognized, so far as they conform to the standards of this University, subject to the conditions of study "in residence," as hereafter prescribed.

Each candidate for the degree of Master of Arts at the June Commencement must be registered in the Graduate School not later than the first Tuesday in October, and must pursue his course "in residence" for not less than one academic year. In this connection the term "in residence" is usually interpreted as meaning that the student is taking not less than four graduate units per semester, with the proviso that, as a rule, at least twelve of the total number of units credited toward the attainment of the degree must be pursued at this University. For "residence" a minimum of two summer sessions may be counted as equivalent to one semester.

The candidate who has not previously done graduate work in this University will begin his registration by applying for admission to the Graduate School by the method above indicated. He will then state the course of study which he wishes to pursue, which course must consist of a principal

or "major" subject closely related to the major subject of his undergraduate course, and one or two subordinate or "minor" subjects satisfactorily related to the major subject. At least one-half of all the work must be done in the major department. The details of his course will be determined upon consultation with the head of his major department; and no subjects or units lacking the approval of the departmental head will be credited toward the degree.

A part of the course will consist of the completion of a thesis, or dissertation, embodying the results of an investigation on some subject in the major department. It is not the intention of the Council that this shall be a piece of highly recondite research such as would befit candidacy for the degree of Doctor of Philosophy; but it must be a serious, considerable, and printable piece of work demonstrating the writer's power of original thought, his thorough grasp of the subject matter involved, and his ability to present his material in a scholarly manner and style. The title of this thesis must be presented for approval by the Council not later than six months before the month in which the degree is sought.

Not later than one month after the approval of his thesis title, the candidate shall present to a special committee a written report as to the scope, method of treatment, bibliography and proposed sources of information and special facilities in the University. This committee, consisting of the head of the department in which the thesis is to be written and two other members of the Faculty appointed by the Dean, will have general supervision of the thesis throughout the entire course of its preparation. The completed thesis, conforming in detail to the printed regulations furnished by the University, shall be submitted to the Council for final acceptance six weeks before the conferring of the degree, and only on the unanimous recommendation of the special committee. In the case of those who are candidates for the conferring of the degree in June the final date shall be approximately the last of April.

THE HIGH SCHOOL TEACHER'S CREDENTIAL

Candidates for the Recommendation for the California High School Teacher's Credential are also registered in the School of Education. For a full description of the requirements for this credential, see Education.

THE STUDENT'S SCHEDULE

Fourteen semester units of work for graduate credit constitute a full program for the graduate student. Those who are engaged in teaching, or in other regular activities, should

limit themselves to programs of correspondingly fewer hours of course work. The maximum for graduate work during a summer session is six credit units. It is ordinarily not advisable for candidates who have had no teaching experience to attempt to complete requirements for the master's degree and the high school teacher's credential in a single academic year.

STUDENT ASSISTANTSHIPS

Many departments require the services of competent graduate students as office or teaching assistants. The compensation for this work, varying according to amount and quality of service rendered, often makes it possible for deserving graduates to continue in the Graduate School as candidates for advanced degrees or the high school teacher's credential. Applications for student assistantships should be made to the department heads.

THE GRADUATE ATTITUDE

The graduate attitude is the psychological index of the development of the student into the scholar. The undergraduate student is chiefly acquisitive and receptive; the graduate steps out, first toward becoming a master of arts, and finally discoverer, creator, leader among students and masters.

The graduate student must become acquainted with the authorities in his domain and with their opinions and findings; through self-reliance and expanding powers of initiative he must show his right to a place among leaders. The set task, the student apparatus of the beginner, any mere schedule based upon the calendar, will not of themselves bring him to the desired position of independence as a master or scholar. The attitude of the graduate, which it is the function of the Graduate School to encourage and foster, is one of increasingly independent effort, whereby the candidate reinforces his claim, by worth and by labor, to the fuller recognition of the University and in the goodly company of scholars.

THE SCHOOL OF EDUCATION

In response to the increased demand for larger facilities for the training of teachers in Southern California, the Board of Trustees of the University of Southern California, at its June meeting, 1918, authorized the organization of the School of Education. The Department of Education was enlarged, and facilities for the training of teachers for special subjects in the public schools were added, so that the School of Education is now vested with authority by the State Board of Education to grant recommendations for the following Teachers' Certificates: (a) Elementary, (b) Intermediate or Junior High School, (c) High School, and (d) Special, including the Manual and Fine Arts, Technical Arts, Commerce, Home Economics, Music, Physical Culture, and Miscellaneous types.

ADMISSION

Graduates of junior colleges and students who have attained the rank of juniors in a College of Liberal Arts are admitted to the School of Education upon filling out and filing in the office of the Dean enrollment blanks calling for such information as is necessary for the determination of standing and supervision of the training which is to follow. The number of units granted toward graduation to students entering the University with advanced standing is determined by the Committee on Credentials, as is the case with all students admitted to the College of Liberal Arts, but the number of units toward the teaching-major and the teaching-minor and professional requirements is determined by a committee of the faculty of the School of Education.

Holders of the bachelor's degree from institutions on the list of accredited institutions of the State Board of Education not previously admitted to the School of Education may be admitted as candidates for the High School Teacher's Credential, provided, (a) They have been admitted to the Graduate School by the Graduate Council; (b) They have elected undergraduate majors and minors which make them eligible for the Teacher's Recommendations sought, and, (c) They possess the physical and personal qualifications necessary for a Teacher's Recommendation. The requirements for admission of holders of the bachelor's degree from institutions not on this accredited list, who have been admitted to the Graduate School, are determined by a committee of the faculty of the School of Education.

If a candidate wishes to take advantage of the exemptions from certain professional requirements on the basis of experi-

ence, as provided under the regulations of the State Board of Education, evidence of the number of months of successful experience must be filed in the office of the School of Education before his study program is submitted to the Dean for approval.

COMMITTEE ON APPOINTMENTS

An Appointment Office is maintained in the office of the School of Education, the duties of which are to assist students and graduates of the University to obtain positions in the teaching profession. The office is in charge of a secretary, who aims to secure and keep on file a complete record of the scholarship, experience and personal qualifications of each candidate for a position. Copies of these records will be mailed to school officials, at their request, or at the request of the candidates concerned. Officials seeking teachers should be explicit in their request, stating the nature of the work to be done, the length of the school year, the approximate salary offered, the approximate cost of board, and the time when the engagement begins. Whenever a notice of a vacancy is received, the Committee on Appointments will recommend the best available person for the position. The University reserves the right of refusing to extend its co-operation to students who apply for positions for which they are manifestly unfit.

The Appointment Office will be glad to be informed promptly of present or prospective vacancies in positions for which college-trained men or women are eligible.

Blanks for registration may be obtained of the Appointment Secretary. Registration must be renewed yearly, preferably during February or March. A nominal fee of two dollars is charged.

Communications should be addressed to the Appointment Secretary, University of Southern California, Los Angeles.

PRACTICE TEACHING FACILITIES

The School of Education has made arrangements with the Department of Education, City of Los Angeles, whereby student teaching in all the elementary subjects is carried on under the personal direction of the Principal of the 36th Street school and selected teachers who act as critic teachers under the general direction of the Principal and the School of Education.

The University High School, a standard high school of a limited number of students, is maintained in connection with the School of Education. It is located on the second floor of the center section of the University's old administration

building and is under the general supervision of Dr Robert A. Cummins, principal.

It offers courses in foreign languages, English, mathematics, history and other social sciences, natural sciences, household art and science, physical education, and music.

The curriculum of each student is directed by a series of requirements which distribute his work widely enough to insure a general education and at the same time call for concentration in two or three lines as an introduction to specialization.

The school tests the work of classes and individuals and devotes much of the time and energy of its staff to the organization of the materials of instruction and to the training of college students who are to enter the teaching profession. A number of successful textbooks have been prepared in the various departments, based on the courses which have been developed in the school.

Several of the members of the high school faculty give college courses in the methods of teaching their respective subjects.

Special circulars are published describing the courses in the high school. These may be had by addressing the Principal of the High School, University of Southern California.

RECOMMENDATIONS FOR TEACHERS' CREDENTIALS

High School Credential. Under the authority granted by the State Board of Education, the School of Education of the University of Southern California will issue a recommendation for the High School Teacher's Credential upon the fulfillment of the following requirements, subject to the exemptions stated below:

1. The possession of a bachelor's degree from an institution on the list of accredited institutions of the State Board of Education, or from an institution of equal standing, with two majors, or a major and a minor in subjects taught in the high schools of the state, or two minors in subjects taught in the high schools of the state and a major in Education.

2. One year (twenty-four units) of graduate work, which must include at least one full year course of advanced work in at least one subject in which recommendation is sought.

3. Twenty-one units in Education, including the following:

- (a) A course in school and classroom organization and technique, or equivalent work—a minimum of one unit. (Education 121.)

- (b) A course in Secondary Education.

- (c) A teacher's course in one of the subjects in which the candidate expects to be recommended, if such course be

given in the institution and be accepted or listed under the work in Education. (A maximum of two units for all such courses.)

(d) Practice teaching, four units. (Education 223.)

(e) Course in Citizenship and Education, a minimum of two units.

(f) Electives, six or seven units.

Graduates from California State normal schools and other state normal schools of equal standing are required to complete only twelve units of graduate work and are exempt from 3a, 3d, and 3f. Candidates who have had eight months of successful experience are exempt from 3d. Graduates with seventeen months or more of successful experience are exempt from one-half of 2 and all of 3; but all candidates, regardless of previous training and experience, are required to take, as a part of their graduate work, at least one course in Education and one course in one of the subjects in which they are seeking recommendation.

Junior High School Credential. The recommendation for the Junior High School Credential will be issued upon the completion of the following requirements:

The possession of a bachelor's degree, the work for which includes fifteen or more units in Education, distributed as follows:

(a) A course in school and classroom organization and technique, or equivalent work—a minimum of one unit.

(b) A course in actual practice teaching, with conferences—a minimum of four units.

(c) A teacher's course in one of the subjects in which the candidate expects to be recommended, if such course be given in the institution and be accepted or listed under the work in Education. (A maximum of two units for all such courses.)

(d) A course in secondary education presenting particularly the purpose and field of junior high school work—a maximum of two units. (Education 153.)

(e) Course in Citizenship and Education, a minimum of two units.

(f) Electives, four units.

Experienced teachers with seventeen or more months of experience may secure a Junior High School Credential by direct application to the State Board of Education, provided:

(a) They have had three and one-half years of normal school, college, or university work, or have had not less than three years of college work and in addition thereto extensive travel and experience in foreign lands or officers' training or other sufficient war experience or conspicuously success-

ful experience as a school or other administrator that may be accepted in lieu of one-half year of such college training.

(b) They have had a sufficient number of units of work in Education in institutions of collegiate grade which when considered in conjunction with their teaching experience may be considered a full equivalent of fifteen units of Education taken in such institutions.

Elementary Certificate. The recommendation for the Elementary Certificate will be granted upon fulfillment of the following requirements:

1. The possession of the bachelor's degree from this University.

2. The completion of at least twelve units in the Department of Education, which must include the following:

(a) Elementary Education, two units. (Education 101.)

(b) Practice Teaching, four units. (Education 123.)

(c) Additional courses in Elementary Education, six units.

Teachers with eight months or more of experience are exempt from 2.

Credentials in Special Subjects. The recommendation for Elementary Special Certificates will be issued upon the fulfillment of the following requirements:

1. The completion of at least three years of college work, one-half of which has been given to instruction devoted to study or work in the special subject or subjects in which the candidate wishes recommendation, and in such subjects as are strictly supplementary thereto.

2. The completion of twelve units in Education, at least one-third of which shall be devoted to practice teaching, including methods of instruction in the special subject or subjects in which the candidate wishes recommendation.

(Teachers with one year of successful experience may be exempt from one-half of the prescribed professional requirement, including practice teaching. Teachers with two or more years of successful experience may be exempt from the entire professional requirement.)

Recommendations for Secondary Special Certificate will be issued upon the fulfillment of the following requirements:

1. The completion of four years of college work, one-half of which has been given to instruction devoted to study or work in the special subject or subjects in which the candidate wishes recommendation, and in such subjects as are strictly supplementary thereto.

2. The completion of twelve units in Education, including a special teacher's course and practice teaching in the subject in which the candidate wishes recommendation.

(Teachers with one year of successful experience may be exempt from one-half of the prescribed professional requirement, including practice teaching. Teachers with two or more years of successful experience may be exempt from the entire professional requirement.)

REGISTRATION

Each undergraduate student enrolled in the School of Education makes out his study-program with, and is under the supervision of, the head of the department of his major subject, but will confer with the Dean of the School of Education regarding professional work. Candidates for elementary and special certificates should plan their work for the junior and senior years at the beginning of the junior year and should distribute the professional training and other requirements about equally over the two years. Candidates for the High School Teachers' Recommendations should distribute the work taken in the Department of Education about equally over the junior, senior, and graduate years. The Departmental Teachers' Courses and Practice Teaching should be taken during the graduate year.

Graduate students, after admission to the School of Education, will arrange their study-programs in conference with their major professors and submit them to the Dean of the School of Education for approval before registration. Twelve units each semester constitutes regular work for the graduate year. Students will, if conditions warrant, be permitted to register for as many as fourteen units each semester. One half of the work of the graduate year must be selected from upper division and graduate courses in subjects taught in the high schools of the state, and one-half in Education. Teachers who have had seventeen or more months of successful experience and are exempt from the half year of graduate work required for the High School Teachers' Recommendation should distribute their work as follows: six units in one of the subjects in which they seek recommendation for a High School Teachers' Credential, three or four units in a second subject in which they desire recommendation, and two or three units in Education.

DEPARTMENTS OF INSTRUCTION

Lower Division courses are given numbers from 1 to 99; Upper Division courses, 100 to 199; Graduate courses, 200 to 299. Ordinarily students should elect only courses in the divisions in which they are enrolled.

Courses, the numbers of which are followed by ab (e. f. 100ab), and marked "throughout the year," are continuous courses and cannot be commenced in the second semester.

The University reserves the right to withdraw any course for which the enrollment is not sufficient to warrant the organization of a class.

AGRICULTURE

The subjects which are preparatory to a course in practical agriculture are taught in the following departments: Botany, courses 1ab, 1abL, 2L, 3abL, 101L, 104L, 105L; Chemistry, courses 2, 2L, 110L; General Biology, course 110L; Geology, courses 2, 104; Zoology, courses 105L, 108L, 109L.

FINE ARTS

Professor Weatherhead; Assistant Professors Cook, Lowd, Rich;
Instructor Robinson

LOWER DIVISION COURSES

3ab. Still Life. A course in freehand drawing. Still life rendered in various mediums, with special emphasis on underlying principles, composition, and values. Students are advanced as rapidly as is warranted by their work.

Two units; throughout the year.

Robinson

18. Perspective. The principles of linear perspective and the perspective of shadows. Lectures followed by class problems. *Prerequisite:* Art 3ab or its equivalent.

Two units; first semester.

Weatherhead

20ab. Design. Basic principles of design studied through a progressive series of problems, largely abstract, in line, dark and light, and color. Various mediums are used. Library work is required.

Three units; throughout the year.

Lowd

23ab. General Design. Principles of design and color, in the abstract and in concrete problems; as a basis for a greater appreciation, and also as a prerequisite for courses in allied departments where the time is limited. No prerequisites.

Two units; throughout the year.

Lowd

27ab. Poster Design. A course in lettering and design applied to commercial advertising and poster making.

Two units; throughout the year.

Robinson

38ab. Art History. A brief general course tracing the development of art through the most important periods.

Two units; throughout the year.

Cook

UPPER DIVISION COURSES

104ab. Still Life. A continuation of Art 3 with more advanced subjects and mediums. Landscape composition.

Three units; throughout the year.

Robinson

121ab. Design. A continuation of Art 20ab with more concrete problems as the work advances.

Three units; throughout the year.

Lowd

125ab.—Art of the Home. Design principles applied to home furnishing—rugs, draperies, furniture, etc.—and to dress design.

Two units; throughout the year.

130ab. Applied Design and Crafts. The principles of design as applied to and rendered in the various crafts. Block printing, stenciling, batik, pottery, leather work, and basketry. *Prerequisite:* Art 20ab or its equivalent.

Two units; throughout the year.

Robinson

139ab. Art of the Renaissance. A study of the art of the Renaissance followed by study of the various forms which have contributed to the development of modern art. *Prerequisite:* Art 38ab.

Two units; throughout the year.

Cook

146ab. Art Appreciation. A non-technical course of illustrated lectures and gallery tours to acquaint the student with the fundamental principles, historical and modern, governing the various forms of art. The history of the development of art and architecture is studied. One Saturday afternoon each month is devoted to visits to study architecture and to local studios. Local and visiting artists address the class. Exhibits in Exposition Park Art Gallery are visited for study of painting and sculpture.

Two units; throughout the year.

Cook

150ab. Life. An advanced course in drawing and painting from the model in various mediums. Especially adapted to those who expect to make art a profession. *Prerequisite:* Art 3 or its equivalent and the approval of the Department.

Three units; throughout the year.

Rich

199. Teachers' Course. A course in methods for teachers or supervisors in the grades and high schools. Schools visited and the course illustrated practically throughout. Two units; first semester. Lowd

BIOLOGY

Professors Ulrey, Life, Rittenhouse; Associate Professor Twiss; Assistant Professors Beers, Fossler, Spalding; Instructor Greeley; Lecturer Wyman

Courses for those who do not major in Biology but desire some knowledge of living nature and some training in scientific methods: Zoology lab, labL, 108L; General Biology 103 and 104; or Botany lab, labL, and 2L. Courses preparing for agriculture: Zoology lab, labL, 2L, 105L, 109L; Botany, lab, labL, 3L, 105, 107; and General Biology 1, 2, 101L, 102L, 103 and 104.

Zoology

LOWER DIVISION COURSES

1ab. General Zoology. This course of lectures is designed to introduce the student to the fundamental principles of animal biology. To be accompanied by labL. Two units; throughout the year. Rittenhouse

1abL. Laboratory study of animals representing the elementary facts of structure, physiology, classification and ecology. The course gives emphasis to training in observation and in the interpretation of zoological phenomena. Four sections at different periods. To be accompanied by Zoology lab. Two units; throughout the year. Beers, Fossler and Assts.

2L. Physiology. Lectures and laboratory work on (a) the general functions of all living organisms; (b) human physiology. *Prerequisite:* Zoology lab, labL, or Botany lab, labL. Three units; second semester. Ulrey, Fossler

3L.—Ornithology. A study of California birds with reference to (a) taxonomy and bibliography; (b) ecology, giving particular attention to the bird in its usual environments. Laboratory study, field work, lectures. Two units; first semester. Beers

4L.—Mammalian Anatomy. The course consists of a careful dissection and study of type mammals, especially the rabbit, cat and dog; with collateral reading in human anatomy. In the lectures special attention is given to the nervous, blood and skeletal systems, including an outline of their development. *Prerequisite:* Zoology lab, labL. Three units; first semester. Rittenhouse and Assistant

UPPER DIVISION COURSES

103. Animal Ecology. A study of the conditions of life in the sea, the environment and distribution of marine animals, and their reaction to stimuli under natural and artificial conditions.

Two units; summer session.

Beers

104L. Histology. This course gives the student an opportunity to study the chief tissues of the mammalian body; and to learn the method of preparation of tissues, with practice in cutting, staining and permanently mounting sections. Laboratory work and lectures. *Prerequisite:* Zoology lab, labL. Three units; first semester.

Rittenhouse and Assistant

105L. Embryology. A course which deals primarily with the study of the development of the hen's egg and the formation of the organs in the embryo chick. In the laboratory the student learns to make his own serial sections. The lectures include the general problems of comparative embryology, with special attention to the chick and the frog. *Prerequisite:* Zoology lab and 104L.

Three units; second semester.

Rittenhouse and Assistant

106L. Comparative Anatomy of Vertebrates. The laboratory work consists of dissection of the main types of the vertebrate animals, and a study of the relationships of the different systems of organs. The lectures deal with a comparative study of the organs of the vertebrate body, especially from the standpoint of development. *Prerequisite:* Zoology lab, labL.

Three units; first semester.

Rittenhouse and Assistant

108L. Economic Entomology. A study of orchard, field crop and garden insect pests, the forest insects and household visitors. Consideration is given the control and eradication of insect depredations, the composition and application of insecticides, and farm management to eliminate injurious insects. Lectures and laboratory work. *Prerequisite:* Zoology lab, labL, or an equivalent amount of Botany together with the insect aspects of Zoology lab, labL.

Three units; second semester.

Rittenhouse

109L. Parasitology. The organization, life history, and evolution of parasites; the protozoa and their relation to disease; the role of insects, ticks, and mites in the transmission and propagation of disease; together with their control as a phase in medical entomology; and a study of helminthes and larger parasites. Lectures and laboratory work. *Prerequisite:* Zoology lab, labL (or equivalent in Botany) and General Biology 101L.

Three units; first semester.

Rittenhouse

210abL. Special Zoology. An investigation of some problem of limited scope. The course is planned for the needs of each student. Six hours per week throughout the year. *Prerequisite:* Zoology lab, labL, 2L, 104L, 105L, or their equivalent.

Three units; throughout the year.

Ulrey, Rittenhouse

212. Research. Investigation of some problem relating to pure or applied biology may be pursued by candidates for the degree of Master of Arts.

The Staff

Major Work in Zoology. lab, labL, 2L, 106L; General Biology courses 101L, 103 or 104, 105ab, 206ab and six units of electives.

Minor Work in Zoology. Zoology lab, labL, and General Biology 101L, 103ab.

High School Teachers' Recommendation in Zoology. An undergraduate major followed by a full year course in Zoology approved by the head of the department and General Biology 299 if not taken in undergraduate study.

General Biology

LOWER DIVISION COURSES

1. Personal Hygiene. Lectures and recitations on the preservation and improvement of health. The course deals with the functions and care of the body with a view to attaining the greatest possible degree of efficiency. Open to all students.

Two units; first semester.

Ulrey

2. Sanitary Science. A course of lectures on public hygiene. The study includes (1) the nature of infectious diseases, their dissemination and control; (2) the problems of water supply and sewage; (3) the distribution and care of foods in relation to the public health; (4) sanitary surveys of residences, resorts, and public buildings; (5) the various agencies for the federal, state and municipal supervision of public health.

Two units; second semester.

Ulrey

3L. Principles of Biology. Lectures and laboratory. Elective for students who have had no Zoology or Botany.

Three units; second semester.

Beers

4L. General Biology. A course intended primarily for majors in Commerce, Physical Education, Home Economics and Chemistry. It consists of lectures and laboratory study

of living organisms, nutrition, growth, reproduction, etc., illustrated mainly by examples taken from the great groups of plants. Emphasis is laid upon the cell as the unit of structure in plants and animals and upon the fundamental facts on which heredity depends.

Five hours; first semester.

Twiss and Assistant

UPPER DIVISION COURSES

100. History of Biology. This course traces the development of biology and brings out the chief contributions made to the science by the great naturalists from Aristotle to the present time. Lectures, collateral reading and papers. *Prerequisite:* Zoology lab, labL. Not given 1922-23.

Two units; second semester.

Rittenhouse

101L. General Bacteriology. Lectures on the principles of bacteriology with emphasis on the economic phases of the subject. Laboratory work coordinated with the lectures. *Prerequisite:* Botany lab, labL, or Zoology lab, labL or other laboratory training.

Four units; first semester.

Ulrey, Fossler

102L. Economic Bacteriology. A laboratory course dealing primarily with bacteriological investigation of problems of sanitation and public health. *Prerequisites:* General Biology 101L.

Three units; second semester.

Fossler

103. Bionomics. A course of lectures on organic evolution, the principles of development and sex. Two hours per week of laboratory work may be elected. *Prerequisite:* One year of a biological science.

Two units, with laboratory three units; first semester.

Ulrey, Beers

104.—Genetics. A study of the principles of genetics and race improvement. Two hours per week should be devoted to laboratory study in addition to the two hours of lectures. *Prerequisite:* One year of a biological science.

Two units, with laboratory three units; second semester.

Ulrey, Beers

206ab. Seminar. The advanced students of the department select some biological problem for investigation. The work is pursued with the member of the staff in whose field the investigation lies.

Two units; throughout the year.

The Staff

299. Teachers' Course. A study of the teaching of the biological sciences in the secondary schools.

Two units; first semester.

At the Marine Station

207. Biological Survey. A study of the marine animals and plants of the region, including their habitat, classification, distribution and life habits.

Ulrey, Rittenhouse

208L. Experimental Biology. The course consists of a study of some special problem of biology for which the student's training prepares him.

Ulrey, Rittenhouse

209. Research. A limited number of private laboratories are available for free use by investigators who are prepared to carry on such work. Investigation may be carried on throughout the year. Application for these privileges should be made to the director of the station.

The Staff

Summer Course. The course consists of a study of Marine Biology in connection with the exploration carried on by the use of the station launch, the Anton Dohrn. The work is given at the laboratories of the Marine Biological Station. Formal instruction is given only during the regular summer session of the University. See Summer Session Bulletin.

Botany

LOWER DIVISION COURSES

1ab. General Botany. Lectures, recitations, quizzes on the general structure, classification, vital processes, distribution, and agricultural phases of plants. The seed plants are studied first semester, and the great plant groups the second semester. To be accompanied by course 1abL.

Two units; throughout the year.

Twiss and Life

1abL. General Botany. Laboratory study of the structure, forms and general characteristics of typical plants, including a comparative study of flowers of a number of common plant families, and a general study of organs and tissue systems, with notes and drawings. To be accompanied by Botany 1ab. Two units; throughout the year.

Twiss, Life, Spalding, and Assistants

2L. Field Botany and Taxonomy. A study of flowering plants (spermatophytes) in the local flora. The course deals with habitats, pollination, and the relationship of plants. Lecture and six laboratory hours per week, one semester.

Three units; first semester, repeated second semester. Life

3L. Ecology. The relation of plants to their environment of soil, water, physiography, etc., and their structural adapta-

tions. Lectures, field and laboratory work. *Prerequisite:* Botany lab.

Two units; first semester.

Life

UPPER DIVISION COURSES

101L. Plant Physiology. Experimental work on the physiology of plants, lectures and supplementary reading. This course includes general experiments on the work and functions carried on by living plants. *Prerequisite:* Botany lab and Botany labL.

Three units; first semester.

Life

102L. Plant Processes. An experimental study of plant growth and irritability, and exact experiments on the fundamental processes with precise recording apparatus. *Prerequisite:* Botany 101L.

Three units; second semester.

Life

103abL. Mycology. The structure, life history, and principles of classification of the fungi, with special attention to those causing disease of economic plants. Lectures, laboratory work and assigned readings. *Prerequisites:* Botany lab and Botany labL.

Three units; throughout the year.

Spalding

105. Plant Breeding and Genetics. A study of the principles of plant propagation and pure line breeding; also problems of variation and heredity in relation to phylogeny and the improvement of plants. Lectures, quizzes, and field work. *Prerequisite:* Botany lab and labL.

Two units; second semester.

Life

107L. Plant Anatomy and Histology. The minute structure of the systems and tissues. Microscopical technique in preparing permanent mounts. Laboratory work and lectures. *Prerequisite:* Botany lab.

Two units; first semester, repeated second semester.

Twiss

207ab. Cytology. A course dealing with the morphology and physiology of the cell, together with the various theories of protoplasmic structure. Special attention is given to cell inclusions, such as plastids, mitochondria, etc., as well as to the various aspects of mitosis, spermatogenesis and oögenesis.

Three units; throughout the year.

Twiss

208. Morphology of the Algae. A presentation of type forms, taken from the great groups of algae, both fresh water and marine, with special reference to their evolutionary sequence.

Three units; second semester.

Twiss

209. Advanced Botany. Special problems in advanced study of plants for which the student is fitted by previous training.

Three units; first semester, repeated second semester.

Life or Twiss

210ab. Botanical Seminar.

One unit; throughout the year.

Life

Major Work in Botany. Thirty semester units in Botany, including Botany 1ab-103abL, and 210ab.

Minor Work in Botany. Botany 1ab-101abL.

High School Teachers' Recommendation. (a) For inexperienced candidates with Botany as a teaching major; an undergraduate Botany major followed by a minimum of a year course approved by the head of the department, to which will be added Course 106, if not taken in undergraduate work. (b) For candidates with two or more years of experience: an undergraduate major in Botany followed by a one semester course approved by the head of the department.

CHEMISTRY

Professors Stabler, Weatherby; Assistant Professors Smith, Calvert

Students without entrance credit in Chemistry should register in courses 1a and 1aL; those with entrance credit should register in 2 and 2L. Courses 2, 2L, 3 and 3L are prerequisite to all later courses in chemistry and comprise the required work in the engineering courses.

LOWER DIVISION COURSES

1a. General Inorganic Chemistry. A lecture and recitation course, covering the introductory principles of inorganic chemistry. Open only to students who do not present entrance credits in chemistry. To be accompanied by course 1aL.

Three units; first semester.

Smith

1aL. General Inorganic Chemistry. A laboratory course to accompany course 1a. Two laboratory periods a week.

Two units; first semester.

Smith

1b. Elementary Organic Chemistry. A brief course introducing the fundamentals of organic chemistry with especial emphasis on the compounds more common to daily experience. A general course for the non-technical student, as well as for students in the related sciences. It is advised that students desiring this course who have had entrance

chemistry, register the first semester in courses 2 and 2L. To be accompanied by course 1bL.

Three units; second semester.

Weatherby

1bL. Elementary Organic Chemistry. A laboratory course accompanying and supplementing the work of course 1b. Two laboratory periods a week.

Two units; second semester.

Smith

2. Inorganic Chemistry. Non-metals. Lectures and recitations with classroom demonstrations. Especial emphasis is placed on the principles and laws of inorganic chemistry, and their applications. To be accompanied by course 2L.

Three units; first semester.

Weatherby

2L. Inorganic Chemistry Laboratory. A laboratory course to accompany course 2. Especial emphasis is laid on quantitative relations and the development of chemical laws. The latter part of the course is introductory to qualitative analysis. Two laboratory periods a week.

Two units; first semester.

Smith

3. Inorganic Chemistry. Metals. Lectures and recitations on the metals and metalloids, and their chief compounds, with especial reference to their technical value and commercial use. To be accompanied by course 3L.

Three units; second semester.

Smith

3L. Qualitative Analysis. A laboratory course in systematic qualitative analysis, including the identification of both metal and non-metal radicals, and the analysis of simple and complex salts, mixtures, metals, alloys, and commercial products. Two laboratory periods a week.

Two units; second semester.

Smith

4abL. Quantitative Analysis. Laboratory practice in gravimetric and in volumetric determinations, with lectures and recitations on principles and methods. Prerequisite to all subsequent analytical courses. Three laboratory periods a week.

Three units; throughout the year.

Calvert

UPPER DIVISION AND GRADUATE COURSES

105L. Advanced Qualitative Analysis. A laboratory course involving difficult qualitative separations, and analysis in the detection and estimation of some of the more important rarer metals.

Two units; first semester.

Smith

106L. Inorganic Preparations. A laboratory course in the preparation of inorganic compounds with emphasis on purity and yield; discussions on theory and methods.
Two units; second semester. Smith

107abL. Organic Preparations. A laboratory course in the preparation of typical compounds in both the aliphatic and aromatic series; to accompany course 107ab.
Two units; throughout the year. Weatherby

107cL. Organic Preparations—Advanced. A laboratory course in advanced organic synthesis, with supplementary reading and discussions on theory and methods.
Two units; first semester. Weatherby

109ab. Physical Chemistry. A lecture course on the fundamental principles and laws of chemistry. A general study of electro-chemistry is included in the work of the second semester.
Two units; throughout the year. Weatherby

109abL. Physical Chemical Measurements. A laboratory course in the determination of physical and chemical laws and constants; to accompany course 109ab.
One unit; throughout the year. Weatherby

110L. Agricultural Analysis. A classroom and laboratory study of soils, fertilizers, water, cattle feed, and similar substances. *Prerequisite:* quantitative analysis. One lecture and two laboratory periods each week.
Three units; first semester. Calvert

111L. Medical and Pharmaceutical Analysis. A laboratory course, including urine analysis, toxicology, and assay of pharmaceutical products. Designed especially for students looking forward to medicine or pharmacy.
Two units; (not given 1922-23).

112L. Food Analysis. Classroom and laboratory study of food products, beverages, adulterants, and preservatives. *Prerequisite:* quantitative analysis. One lecture and two laboratory periods each week.
Three units; second semester. Calvert

113. Industrial Chemistry. A study of the commoner chemical industries, especially those of local importance; visits to industrial plants. *Prerequisite:* organic chemistry.
Two units; second semester. Stabler

114. Metallurgy. (Not given 1922-23.)

114L. Assaying. Fire assay for gold, silver and other metals, and volumetric analysis of ores and metallurgical products.

Three units; second semester.

Stabler

115. Petroleum Technology. A lecture course on the handling and refining of petroleum; especial emphasis on the newer developments in petroleum pyrolysis and in the treating of petroleum products.

Two units; first semester.

Stabler

115L. Oil, Gas and Fuel. A laboratory course in the technical methods of oil, gas, and fuel analysis. Practice in the refining and treating of petroleum.

Three units; first semester.

Stabler

116ab. Chemical Technology. A study of processes and plant operation in the more important chemical industries; especial emphasis on the application of fundamental chemical principles in industrial chemical work. *Prerequisite:* organic chemistry, physical chemistry preceding or concordant.

Two units; throughout the year.

Calvert

116abL. Industrial Problems. A laboratory course in the working of problems in industrial chemistry and chemical engineering.

Two or three units; either or both semesters. Stabler, Calvert

225ab. Seminar. Reviews of current chemical literature; papers and discussions on research problems. Open for credit to seniors and graduate students only. Required of all graduate students.

One unit; throughout the year.

Calvert

226L. Research. Research work, under the direction of the department, may be pursued by candidates for the degree of Master of Arts, in either pure or applied Chemistry. Minimum; four units.

Stabler, Weatherby, Calvert

228. History of Chemistry. A study of the rise and development of chemical theories and laws.

Two units; second semester.

Weatherby

299 Teachers' Course. A study of the teaching of chemistry in secondary schools.

One unit; second semester.

Major Work: Minimum requirement, thirty semester units following entrance chemistry or courses 1a and 1aL. Required courses: 2, 2L, 3, 3L, 4abL, 107, 107L.

Minor Work: Fifteen semester units. Courses 1a, 1aL, 1b, 1bL, 2, 2L; or courses 2, 2L, 3, 3L, and either 1b, 1bL, or 4abL.

High School Teachers' Recommendation. Inorganic Chemistry, Qualitative Analysis, Quantitative Analysis, Organic Chemistry, Physical Chemistry, Seminar, Teacher's Course, and History of Chemistry.

Master's Degree: The completion of an undergraduate major in Chemistry, one-half of the work of the graduate year must be in Chemistry; the remainder may be of approved courses in related departments. Required courses, part of which may have been taken as undergraduate electives, are 109ab, 109abL, 225ab, 226L, and 228.

COMPARATIVE LITERATURE

Professor Dixon

101. Scottish Vernacular Literature. A study of the literature and idioms of the Scottish language in the four centuries after Chaucer. Special attention will be paid to the influence of French forms and usages. Also to vernacular passages in the historical novels of Scott.

Two units; first semester.

Dixon

102. Tennyson. The poet as lyricist and interpreter of his age, and Platonist, with especial attention to his "In Memoriam."

Two units; second semester.

Dixon

103. English and French Criticism in the Nineteenth Century. Mathew Arnold's critical methods as influenced by Sainte Beuve and other French writers.

Two units; first semester.

Dixon

104. English and French Aesthetical Canons in Nineteenth Century Literature. A comparative study of the writings of Ruskin and Guyau.

Two units; second semester.

Dixon

109. Philippine Literature in Its Relation to European Literature. Especial attention will be given to Rizal's masterpiece, *Noli Me Tangere* (The Social Cancer), a novel of an epoch-making kind, and his *El Filibusterismo* (The Reign of Greed).

Two units; second semester.

Dixon

110 Persian Literature and Persian Themes in English Literature. The "Rubaiyat" of Omar Khayyam and the personalities of Omar and his translator, Edward Fitzgerald;

Firdausi's "Shah-Nameh"; Arnold's "Sohrab and Rustum."

Two units; first semester.

Dixon

120. Verse. A comparative study of verse. Relation of poetical forms to music; possibilities of a common notation. Psalm, the Hymn, the Song, the Ballad and other communal forms of poetry. Parallelism in Hebrew poetry; its laws. The introduction of rhyme into the higher forms of verse in the literature, of East and West. The metrical stanza and the significance of its various types.

Two units; second semester.

Dixon

DRAWING

Professor Weatherhead

1ab. Mechanical Drawing. Use and care of instruments, lettering, geometrical problems, projections, intersection and development of surfaces and working drawings. Three hours first semester and six hours second semester.

One unit, first semester; two units, second semester.

Weatherhead

2ab. Mechanical Drawing. Use and care of instruments, lettering, geometrical problems, projections and simple working drawings. Arranged to meet the needs of general students.

Two units; throughout the year.

Weatherhead

3ab. Architectural Drawing. The principles governing the making of architectural working drawings and detail drawings. Building materials are discussed and excursions to buildings under construction are made.

Two units; throughout the year.

Weatherhead

4. Engineering Drawing. Lettering, title building, topographical mapping and preparing detailed working drawings of steel and concrete construction. Six hours. *Prerequisite:* Drawing 1ab.

Two units; first semester.

Weatherhead

5. Machine Drawing. Sketching of machine details, preparation of scaled shop drawings, lettering, tracing and blue printing. Six hours. *Prerequisite:* Drawing 1ab.

Two units; first semester.

Weatherhead

6. Descriptive Geometry. A study of the problems relating to the point, line, and plane, and their application.

Two units; first semester.

Weatherhead

7. Kinematic Drawing. Mechanism, velocity and acceleration, diagrams, cams and linkages. Three hours. *Prerequisite:* Drawing 5.

One unit; second semester.

Weatherhead

8. Shades and Shadows. Brief and accurate methods for determining the shadows of geometrical lines, plane figures, and solids, and their application to the casting of conventional shades and shadows on the principal architectural members. *Prerequisite:* Drawing 6.

One unit; second semester

Weatherhead

9. Perspective. The theory and application of methods of drawing architectural perspectives. The perspective of shadows and reflections. *Prerequisite:* Drawing 6.

Two units; second semester.

Weatherhead

199. Teachers' Course. A study of the subject matter, text books, and methods of presenting a high school mechanical drawing course. Students in this course are required to audit in other drawing classes from time to time.

Two units; first semester.

Weatherhead

ECONOMICS

Professors Hunt, Marston, Eberle; Associate Professors Carus, Power; Assistant Professors Baskerville, E. E. Olson, Stonier; Instructors Burr, R. L. Olson, Phillips, Fagan; Lecturers McKee, Perry, Wayne, Rogers, Whitnall

LOWER DIVISION COURSES

1ab. Principles of Economics. A comprehensive introduction to economic studies, based upon a recent text, lectures, assigned readings, and student exercises. This course is in general prerequisite to all other courses in Economics.

Three units; throughout the year.

Hunt and Assistants

2. Money, Credit, and Banking. The origin and evolution of money, with special attention to the problems of metallic and paper money, and to leading systems and newer problems of banking.

Three units; first semester.

Marston and Assistants

3. Public Finance. A study of budgetary science, the principles and practice of taxation, public expenditures, and financial administration. Attention is given to problems of war finance.

Three units; second semester.

Marston and Assistants

4. Fiscal and Industrial History of America. A comprehensive survey of American economic development and of national legislation in the fields of currency, finance, and the tariff.

Two units; first semester.

Phillips, Power, Fagan

5. Economic Geography. History and present status of industry and commerce in the world; the world market and

national policies in the development of resources, especially in the United States.

Two units; second semester.

Carus, Phillips, Power

14ab. Accounting: Theory and Principles. Relation of the science and art of accounting to the economics of modern business. Interpretation of the balance sheet, with special applications in bank accounting, trust accounting, insurance accounting, etc.

Three units; throughout the year. Baskerville and Assistants

UPPER DIVISION COURSES

100. Principles of Economics. A study of general principles underlying economic activity for upper division students who have not had Economics lab.

Three units; first semester.

Carus

102. Labor Problems. The important labor problems of the day, with special reference to American conditions following the great war.

Two units; second semester.

Marston

104. Corporation Finance. Promotion; underwriting; earnings; expenses; surplus; insolvency; receivership; reorganization; and state regulation, short time loans, corporate bonds.

Three units; first semester.

E. Olson

105. Railway Transportation. Theory and history. Development of the railroad, its organization, management, and consolidation.

Two units; first semester.

Marston

106. Ocean Transportation. The system, service, relation to the public, government aid and regulation.

Two units; second semester.

Carus

107. Business Organization. Advantages and disadvantages of various methods of organization, internal management, differentiation of the duties of various departments, with special attention to the corporation.

Three units; first semester.

Marston, Power

108. Socialism. The underlying causes of the modern socialistic movement, study of various schools; a critical estimate of socialism as a philosophy of economic evolution and as a program of social reform. (Not given in 1922-23.)

Two units; first semester.

Hunt

109. Life Insurance. A comprehensive lecture course on the theory and practice of life insurance; special attention to the concrete problems.

One unit; first semester.

Wayne

110. Fire and Property Insurance. The theory and practice of fire and property insurance with particular attention to concrete policies, policy conditions, inspecting, rating, adjustment of losses, brokerage.

One unit; first semester.

Perry

111. Agricultural Economics. History and problems of rural economics, followed by a study of agricultural commerce.

Two units; first semester.

Fagan

112. Conservation of National Resources. The economics of conservation as applied to the great natural resources. Human conservation and the foundations of national prosperity. (Not given in 1922-23.)

Two units; second semester.

Hunt

115. Marketing and Distribution. The aim of this course is to give a comprehensive survey of the field of market distribution of commodities. The position and functions of the various classes of middlemen, including types of retailers, wholesalers, brokers, commission men and manufacturers' agents, are studied.

Two units; second semester.

Stonier

117. Salesmanship. The underlying principles and psychology of salesmanship. A part of the course is given over to a discussion and lectures on the practical application of the principles and theory of salesmanship.

Two units; first semester.

Stonier

120. World Trade. The study of foreign trade as a factor in national development; volume, character and direction of international trade; land and sea rates; commercial rivalries and the future of the United States as a commercial nation.

Three units; first semester.

Carus

122. Commercial Banking. A study of actual banking problems and operations; the Federal Reserve System; foreign banking; branch banking; etc.

One unit; second semester.

McKee

130. Statistics, Statistical Theory and Method. The principles of statistical methods by lecture and laboratory method and how they apply in the economic and business world;

planning an investigation; approximation and accuracy, frequency tables; types and averages; dispersion and skewness; historical data and methods of comparison; correlation, etc. Three units; first semester. Eberle

140. Investments. Channels and various forms of investments; various classes of stocks and bonds and an analysis of current security flotations; the stock exchange, amortization; computing net earnings; the current financial situation and trend.

Two units; second semester.

Stonier

GRADUATE COURSES

200ab. Seminar. Designed to meet the needs of graduate students of the department. Major reports are based upon original investigation; reviewing of recent books and periodical literature; topics of contemporaneous interest.

Two units; throughout the year.

Hunt

201ab. History of Economic Thought. Development from classical antiquity with discussions of the different schools of economics. Extensive readings, with student reports. (Not given in 1922-23.)

Two units; throughout the year.

Hunt

202ab. Recent Economic Theory. A comparative study of the theories of contemporaneous economists and the tendencies of the present day. Special reference to the problems of value and distribution.

Two units; throughout the year.

Hunt

Major Work in Economics: Thirty semester units.

Note: With the approval of the head of the department the student may select other courses listed under the College of Commerce and Business Administration, which will be credited toward a major in Economics.

Minor Work in Economics: Twelve units, including Economics lab, at least six of which must be in upper division courses.

High School Teachers' Recommendation: An undergraduate major including Economics lab, Principles; 2, Money and Banking; 3, Public Finance; 102, Labor Problems, or 115, Marketing and Distribution; 104, Corporation Finance, and 105, Railway Transportation, or 106 and 107, Ocean Transportation and Business Organization; and a full year course elected from Economics; 200, Seminar; 201, History of Economic Thought, or 202, Recent Economic Theory.

EDUCATION

Professors Rogers, Betts; Associate Professors Lunt, Stormzand, Touton;
Assistant Professor Cummins

Students electing work in the Department of Education as a part of a general culture course should choose from courses 102, 103, 141, 201 and 202. Psychology 107 and 205 may be credited toward a major in Education (but not toward the minimum requirements for a teacher's recommendation).

Psychology, three units, is a prerequisite to all courses in Education. Education 101, 102 or 103 (or equivalent work) is a prerequisite to all other courses in this department.

UPPER DIVISION COURSES

101. Principles of Elementary Education. An introductory study of educational principles underlying the work of the elementary schools. Required of all candidates for the Elementary Teacher's Certificate.

Three units; first semester.

Stormzand

102. Fundamentals in Education. A course of readings and discussions intended as an introduction to the general problems of education, and a survey of the principal fields, with emphasis on the scientific approach and method of dealing with these problems.

Three units; second semester.

Rogers

103. Public Education in America. A study of the evolution of educational principles, organizations, curricula, and methods which constitute the foundation of present-day educational theory and practice in America.

Three units; first semester.

Touton

104. History of Elementary Education. A brief resume will be made of the general history of elementary education prior to the work of Horace Mann, and from that time on a more detailed study of the developments of the elementary school work, as a movement, in the United States.

Two units; second semester.

Stormzand

115. The California School System. A careful study of the California state system of education. The California school code is carefully examined; a comparison with the "School Code of Osceola" and educational organization in other leading states is made.

Two units; first semester.

Touton

116ab. Educational Administration. An introductory presentation of the fundamental problems connected with the work of the superintendent and other administrative officers. Although emphasis will be placed on the administrative and supervisory organization of work in the city schools, larger problems of state and county control will also be considered.

Three units; second semester.

Touton

117. City School Administration. An advanced course dealing with selected problems of organization and administration in a system of schools. Consideration will be given administrative organization, supervision of instruction, buildings, finances, and plans for development.

Two units; summer session.

119ab. Current Literature in Education. An informal consideration of current topics in Education. Open to seniors and graduates who have had, or are registered for, eight or more units in Education. May be taken with or without credit work. This course takes the place of the Departmental Club.

One unit; throughout the year.

Rogers

120. Organization and Technique of Teaching. (In elementary schools.) This course is intended especially for candidates for either elementary or junior high school teachers' credentials. Some attention will be given a few of the more recent general methods, such as supervised study, socialized recitation, and the project method. The major emphasis, however, will be given to the study of specific methods and devices in the principal elementary school subjects.

Three units; second semester.

Stormzand

121. Organization and Technique of Teaching. (In secondary schools.) A course required of all candidates for the High School Teachers' Credential and of all students majoring in Education. It deals with the types of lessons and conventional methods, with emphasis on some of the more recent experimental movements, such as supervised study, the socialized class, the project method, etc. The discussion of principles will be supplemented by observation of actual classroom work.

Three units; first semester, repeated the second.

Cummins

114. Educational Hygiene. Emphasis is placed on problems that confront the classroom teacher, such as growth, nutrition, exercise, physical defects, school diseases, etc., the relation of health to delinquency, educational hygiene, and health supervision. (Not given 1922-23.)

Two units; first semester.

Cummins

122. School Treatment of Individual Differences. This course deals with such phases of educational and mental testing as are used to discover retarded and deficient children, and the study of provisions made and methods used to meet their needs. An effort will be made to adapt and connect this work with the principal phases of such work as have been developed in the Los Angeles schools.

Two units; summer session.

Stormzand

123. Practice Teaching. Experience in teaching under supervision for at least five hours a week for one semester in the public elementary schools of the city. Open to seniors recommended for the teaching service. *Prerequisite:* Eight units in Education.

Four units; first semester, repeated second semester.

Stormzand and Supervisory Staff

128. Educational Theory and Practice. The recitation, its purpose, plan, and method; types of question and response; the supervised and cooperative study-lesson; teaching by problems and supplemental material; the development of a system of graphic illustrations. Assigned readings and practical exercises.

Two units; summer session.

Lunt

132. Educational Psychology. An introductory course dealing with native tendencies and the educational problems involved. Native endowment, mental development, work and fatigue, and individual differences in relation to heredity, sex, maturity, and environment, are some of the topics considered.

Three units; second semester.

Stormzand

133ab. Experimental Education. A careful study is made of the psychological and educational factors involved in teaching the different elementary school subjects, with special attention given to experimental work by teachers in connection with their regular teaching. Enrollment only by special permission of instructor.

Two units; throughout the year.

Stormzand

134. Psychology of Elementary School Subjects. The psychology of the principal elementary school subjects, arithmetic, language, spelling, reading, history, and geography, will be taken up separately. The psychological analysis of these subjects will be made on the basis of use, or as a practical background for the teacher's method in dealing with both group situations and individual problems.

Two units; first semester.

Stormzand

135. Psychology of High School Subjects. An analysis is made of the various high school subjects, from the point of view of the special psychological problems involved in the adaptation of subject-matter to the high school student and the development of special methods in the teaching of such subjects. (Not given 1922-23.)

Two units.

Stormzand

141. Principles of Social Education. Social factors involved in the education of the child and the relation of education to community needs. Consideration is given to the principles

and problems involved in extending the influence of the school beyond the regular school activities.

Three units; first semester.

Rogers

142. Citizenship and Education. An analysis of the ideals and habits essential for good citizenship is made, followed by a study of the part each school subject has in their development.

Two units; first semester, repeated the second.

Rogers

143. Vocational Education. The purpose, history, organization and promotion of vocational education and its articulation with the public school system and with industry. Special attention will be given to the Smith-Hughes Law and other federal and state enactments bearing on this problem.

Two units; first semester.

Touton

144. Educational and Vocational Guidance. A study of the history and principles of vocational guidance, followed by an analysis of the psychological and educational factors, on the one hand, and the social and economic factors on the other, involved in assisting boys and girls of high school age in determining their own capacities and fitness for participating in life activities.

Two units; second semester.

Touton

151. Principles and Organization of Secondary Education. The evolution, scope and function of secondary education, the relation of the secondary schools to other educational activities, and the present needs and tendencies are considered. Required of candidates for the High School Teachers' Credential. (Not open to juniors.)

Three units; first semester.

Touton

152. Administrative Problems in Secondary Education. A continuation of Education 151 in which such problems as teaching staff, student activities, adaptation of curricula, community relationships, etc., are considered. (Not open to juniors.)

Three units; second semester.

Touton

153. The Junior High School. An intensive study of the principles and problems involved in the reorganization of Secondary Education. Special attention is given to modifications in the plan and equipment of group organizations and changes in curriculum and methods of instruction.

Two units; second semester.

Touton

GRADUATE COURSES

201. Philosophy of Education. A study of Education as a social agency in relation to other forces that work in a demo-

cratic society. An effort is made to evolve a working theory of democratic education. Such topics as education as a social function, the democratic conception of education, the nature of method, and educational values will be considered. *Prerequisite*: Eight units of Education, including Education 102 or 141.

Two units, first semester.

Rogers

202. Philosophy of Education. A continuation of Education 201. Such fundamental problems as the relations of the individual and society, nature of subject-matter, nature of method, the philosophical aspects of the subject of curricula, are considered. *Prerequisite*: Eight units in Education, including Education 102 or 141.

Two units; second semester.

Rogers

204. Educational Classics. A study of the social setting and an analysis of the educational principles presented in the writings of Plato, Aristotle, Comenius, and other earlier writers. Some attention will be given to modern writings, including the works of Dewey. (Not given 1922-23.)

Two units; second semester.

Rogers

206. Sociological Foundations of Curricula. An analysis of the objectives of education, followed by a study of the psychological and social factors in the selection and organization of curricula for different types of school. This course alternates with Education 202. (Not given 1922-23.)

Two units; second semester.

Rogers

211. Statistical Methods. An introductory course giving the principles of educational research accompanied by laboratory practice in working out the more commonly used statistical devices. Data will be taken from typical school conditions.

Two units; summer session.

Stormzand

213. Educational Tests and Measurements. An examination of the more common tests and measurements used in the elementary and high schools, with observation of the practical work of others and some laboratory practice.

Three units; first semester.

Stormzand

215ab. Seminar in Educational Administration. A group for the cooperative study of administrative problems, to bring together teachers and principals interested in working out some common problem, with intensive research of the literature and group discussion. Definite topics will be announced for each year. (Not given 1922-23.)

Two units; throughout the year.

Touton

221ab. Supervision and Criticism of Instruction. Guiding principles for determining the efficiency of instruction are developed. The respective functions of teacher and supervisor and the application of the principles underlying supervision will be considered.

Two units; throughout the year.

Touton

223. Practice Teaching. Conference, observation and actual experience in the handling of classes in the University High School. Required of all candidates, without previous teaching experience, for the High School Teachers' Credential. *Prerequisite:* Eleven units of Education.

Four units; first semester, repeated second semester.

Cummins, Lunt and Supervisory Staff

231ab. Seminar in Educational Psychology. Students will be given opportunity to work out individual problems, either as partial preparation for Master's theses in Education or in practical school work, if members are engaged in teaching or administrative work. Either Education 132 or 213 will be a prerequisite for this seminar, and Education 211 is also suggested as a desirable preliminary course.

Two units; throughout the year.

Stormzand

251ab. Seminar in Secondary School Problems. An advanced course given to an intensive study of principles, organization and administration of Secondary Education.

Two units; throughout the year.

Rogers, Touton

261ab. Thesis Work. Registration in this course is required of all candidates for a Master's degree with a major in Education. General outline of the requirements for thesis, preliminary reading, and individual conferences constitute the work of the course. The amount of credit is determined by the relation this course bears to other courses in the department.

Two units; throughout the year. Rogers, Stormzand, Touton

Special Teachers' Courses

The following Teachers' Courses are designed for students preparing to teach in secondary schools. They are offered in preparation of Teaching-Majors and Teaching-Minors in the School of Education. These courses have been approved as required by the regulations of the State Board of Education and may be counted by inexperienced candidates, to the extent of two units, toward the fulfillment of the requirements in Education. Teachers with seventeen months or more of experience will find it profitable to elect a departmental Teachers' Course, but should take this work in addition to the twelve units required in graduate study.

- Education 199A. Methods in Teaching Art.**
(See Art 199.)
Two units; first semester. Lowd
- Education 299B. Teaching of Biological Sciences.**
(See Biology 299.)
Two units; first semester. Cummins
- Education 299E. The Teaching of English.**
(See English 299.)
Two units; first semester. Lunt
- Education 299F. The Teaching of French.**
(See French 299.)
Two units; first semester.
- Education 299H. The Teaching of History.**
(See History 299.)
Two units; second semester. Lunt
- Education 199h. Methods of Home Economics.**
(See Home Economics 199.)
Two units; first semester. York
- Education 299L. The Teaching of Latin.**
(See Latin 299.)
Two units; first semester. Tilroe
- Education 299M. The Teaching of Mathematics.**
(See Mathematics 299.)
Two units; second semester. Willett
- Education 199s. The Teaching of Speech.**
(See Speech 199ab.)
One unit; throughout the year. Yoder
- Education 299P. Methods in the Physical Sciences.**
(See Physics 299 and Chemistry 299.)
Two units; second semester. Cummins
- Education 299S. Methods in Spanish.**
(See Spanish 299.)
Two units; second semester. Johnson

ENGINEERING COURSES ELECTIVE IN ARTS

Any of the courses offered under Chemical, Civil, Electrical, Mechanical or Mining Engineering may be elected toward the Bachelor of Arts degree, but not to exceed 15 units may be so used. These courses may also be transferred by engineering students seeking credit towards the Arts degree, together with courses in science, drawing, etc., taken in regular Arts classes; in such cases, however, not to exceed 18 units of credit may be transferred for any one semester's work.

ENGLISH LANGUAGE AND LITERATURE

Professors Gaw, Wood, Wann; Associate Professors Blanks, Biles;
 Assistant Professors Clark, Cooke, Thompson; Instructors
 Truesdell, Lockley, Burton

A. Sub-Freshman English. A course in the elements of grammar, sentence structure, and punctuation. Required of all entering students who are unprepared for English lab. No college credit is given for the course, but it must be completed before the conditioned student is admitted to the required course in Freshman Composition.

Three hours per week, first semester; repeated second semester. Biles, Clark, Thompson, Truesdell, Lockley

LOWER DIVISION COURSES

lab. Introductory Course. The theory and practice of writing. Required of all candidates for the Bachelor's degree except as provided under English 2. Admission to this course is strictly by examination conducted during the first week of the course, and those not so qualifying are required to take English A as a *prerequisite* to admission to English lab.

Three units; throughout the year.

Gaw, Blanks, Biles, Clark, Cooke, Thompson, Hedley,
 Truesdell, Lockley, Burton

2. Condensed Introductory Course. For those students only who pass the entrance examinations to English lab with a marked degree of excellence both in thought and in form. Upon the successful completion with high grades of this one-semester course, the student may be permitted to substitute courses in advanced composition or in literature for the second semester of the required work in English.

Three units; first semester.

Thompson

4. Business Correspondence. A practical course in the writing of effective business letters of all types, based upon a study of the psychology of business and supplemented by special lectures from correspondence experts. *Prerequisite:* Six hours of English Composition. Not credited toward an English major.

Two units; first semester; repeated second semester. Wann

5. Advanced Business English. The preparation of catalogues, folders, booklets, etc. Foreign correspondence. *Prerequisite:* English 4. Not credited toward an English major.

Two units; second semester.

Wann

9. Advanced Composition. A course in descriptive and expository writing designed to develop fluency and accuracy on the part of students who intend to make writing a profession.

Two units; second semester.

Thompson

20fg. General Survey of English Literature. The work of the first semester covers the field of English literature from the "Beowulf" to Defoe; that of the second semester from Defoe to Stevenson. Required of all students intending to do major work in English, and in general *prerequisite* to courses in English literature of Upper Division grade.

Three units; throughout the year. Clark, Cooke, Thompson

50fg. Types of Great Literature. Given primarily for students not majoring in English that they may become familiar with those masterpieces of world literature that are fundamental to a broad culture.

Two units; throughout the year.

Thompson

63f. Studies in the Novel. An analytical treatment of modern specimens of the type.

Two units; first semester.

Blanks

66fg. The English Essay. A study of the development of the essay as a type from Montaigne and Bacon to the present day; a combined reading and writing course, consisting of (a) a general study of a number of the prominent English essayists, with special emphasis on Bacon, Addison, Steele, Lamb, Hazlitt, Stevenson, and contemporary English and American essayists; and (b) the writing of the various types of the informal essay, as represented by the essayists studied.

Two units; throughout the year.

Wann

97. Public Course. Contemporary Leaders of Literary Thought. Each lecture includes a comprehensive view of the intellectual and stylistic qualities that give importance to the living English or American author under discussion, illustrated by the reading of generous excerpts from his works. (Not offered 1922-23.)

Gaw, Wood, Wann, Dixon, Blanks

UPPER DIVISION COURSES

103 Short Story Writing. A practical course in short story composition. The course includes a study of modern short story models; the development of plots from basic ideas; the mechanism of short story construction; and the character and requirements of various markets and methods of marketing stories. Enrollment limited to fifteen students. *Prerequisite:* A high grade in English 1ab or English 2, or other qualifications satisfactory to the instructor.

Two units; first semester: repeated second semester. Clark

106ab. Writing in Poetic Forms. A practical course in poetic composition. After some consideration of the values of various metrical lines and tone-colors as expressive of different conceptions and moods, the class experiments with typical forms, such as the quatrain, the Omar Khayyam stanza, the couplet, blank verse, the Spenserian stanza, the ballad, the ode, the sonnet, and the various French forms. The main *prerequisites* for the course are an ear for rhythm and a desire to experiment in its resources for creative work. The student should, however, have had English 20fg or its equivalent. (Not offered, 1922-23.)

One unit; throughout the year.

Gaw

107ab. Play-Writing. A practical course in dramatic composition, analytical and creative. Study of models; adaptations of short-stories to the stage; development of original plots; the play-scenario and the completed play. In cooperation with the College of Oratory plays of merit written by members of the class may be given an experimental production. Enrollment is limited to fifteen persons. This course should be preceded or accompanied by English 156 or 158.

One unit; throughout the year.

Gaw

111ab. The English Language. A study of the evolution of Modern English from Old English under the varying influences that have affected the vernacular since its advent in Britain. The course, including as it does the elements of Old English, the history of the language, and the fundamental principles of philology, has been designed to fit the needs of all serious students of English, who should be equipped with an understanding of the organic structure and growth of their mother tongue. Required of all English major students. *Prerequisite:* English 20fg.

Three units; throughout the year.

Cooke

126. The period of Chaucer. A survey of Chaucer's life and times, with some attention to writers other than Chaucer; readings principally in the "Canterbury Tales" and "Troilus and Criseyde." *Prerequisite:* English 20f and 20g.

Two units; first semester.

Cooke

129. The Elizabethan Period (Non-dramatic literature). 1557-1625. After a preliminary survey of the Renaissance in England, the course proceeds with a study of the principal authors and types of the non-dramatic literature of the period, with special emphasis on Spenser, Sidney, Bacon, Shakespeare, and Jonson. *Prerequisite:* English 20f and 20g.

Three units; first semester.

Wann

133. The Period of Milton. 1625-1660. A study of Milton and his contemporaries, with special attention to the significance of Puritanism. *Prerequisite:* English 20f and 20g. Three units; second semester. Wann

135. The Classical Period. 1660-1760. Dryden, the Augustans, Johnson and his circle, the evolution of Journalism, the development of the Novel and the Drama, the rise and decline of Neo-Classicism. *Prerequisite:* English 20f and 20g. Not offered 1922-23. Three units; first semester. Cooke

137. The Romantic Period. 1760-1832. After a preliminary discussion of the beginnings of Romanticism in England, the work proceeds with a study of the poetical work of Burns, Wordsworth, Coleridge, Scott, Byron, Shelley, and Keats, with some attention to the prose writers of the period. *Prerequisite:* English 20f and 20g. Three units; first semester. Wann

140. The Victorian Period. 1832-1892. Chief attention is given to Tennyson, Browning, Carlyle, Newman, Ruskin, Arnold, the Pre-Raphaelites, and Swinburne. *Prerequisite:* English 20f and 20g. Three units; second semester. Cooke

143. Contemporary British and American Poets. A consideration of the chief writers of verse in the English language since the death of Tennyson. *Prerequisite:* English 20f and 20g. Not offered 1922-23. Three units. Wood

145. American Literature. A survey from the beginning to the present day. A preliminary study of Colonial and Revolutionary literature is followed by careful attention to the chief poets and prose writers of the nineteenth century. Throughout the course special attention is paid to the relations between American and British literature. Three units; second semester. Wann

146. American Prose writers. A study of the chief American prose writers, with special emphasis on Poe, Hawthorne, Emerson, Thoreau, and Lowell. Not offered 1922-23. Two units; second semester. Wann

147fg. Studies in American Literature. First semester: The works of Edgar Allan Poe and Sidney Lanier. Second semester: The works of Henry David Thoreau and Walt Whitman. Not offered 1922-23. Two units; throughout the year. Wann

151. Epic and Lyric Poetry. The sphere and contents of poetry as related to the fine arts and literature; the nature

and types of epic and lyric; metre and tone-color as interpreters of the spiritual message of the poem; the history of some leading varieties of epic and lyric in English literature. *Prerequisite*: English 20f and 20g, or their equivalent in other literatures. Not offered 1922-23.

Three units; second semester.

Gaw

156fg. Shakespeare and the Elizabethan Drama. First semester: A detailed study of the dramaturgy of a Shakespearean play as a basis of comparison in the course, followed by a sketch of the development of the English drama through the miracle and morality plays, the interlude, and the influences of the drama of Plautus and Seneca, and a more detailed study of the drama of Lyly, Peele, Kyd, Marlowe, and Greene. Second semester: A study of a series of plays by Shakespeare and his contemporaries, with due attention to theatrical and social conditions. *Prerequisite* for Liberal Arts students: English 20fg. In 1922-23 only the second semester of the course will be offered.

Three units; throughout the year.

Gaw

158ab. Modern Drama. A study of several typical plays by Ibsen, followed by a brief survey of the history of English drama from 1660 and a more comprehensive consideration of contemporary English, American, and Continental dramatists. *Prerequisite* for Liberal Arts students: English 20fg.

Three units; throughout the year.

Gaw

164f. The History of the Novel. The development of the European novel to the time of Scott, with especial attention to its production in England.

Two units; first semester.

Cooke

164g. The Modern Novel. After a study of the major novelists of the nineteenth century, attention is directed to the more recent writers of American and European fiction.

Two units; second semester.

Cooke

180g. Burns and the Scottish Vernacular. A study of Scottish lyric verse. Particular attention will be paid to the literary and social elements in Burns' poetry.

Two units; second semester.

Dixon

183j. Browning. A study of the art and teaching of Robert Browning, with especial attention to "The Ring and the Book." Not offered 1922-23.

Three units; second semester.

Wood

190fg. Literary Criticism. The analysis, in chronological order, of certain masterpieces of criticism, with attention to

the definitions and characteristics of various types of literature and the influence of the literary theories of various nations upon those of England. *Prerequisite:* English 20f and 20g. Not offered in 1922-23.

Two units; throughout the year.

Cooke

193fg. English Translations of the Classics. The reading of English translations of (f) Greek and (g) Latin masterpieces, accompanied by a study of the historical development and the salient characteristics of important literary types and some consideration of their influence upon later literature.

Two units; throughout the year.

Brown

GRADUATE COURSES

210. Introduction to the Theory of Language. The progressive and conservative forces entering into linguistic evolution, and a survey of the relations of English to the other members of the Indo-European linguistic group. Not offered 1922-23.

Three units; second semester.

Gaw

224. Early Middle English Literature. A study of typical literary forms between 1100 and 1350. Not offered 1922-23.

Three units; second semester.

Gaw

246. Studies in American Literature. Subjects for 1922-23: Emerson, first semester; Hawthorne, second semester.

Two units; throughout the year.

Wann

264ab. The History of the Novel. The development of the European novel, with especial attention to its production in England. Not offered 1922-23.

Two units; throughout the year.

Wood

273. Arthurian Romance in English. Studies in the development of the Arthurian material down to Malory; the importance of "Le Morte d'Arthur"; the influence of the Arthurian cycle in modern English literature. Not offered 1922-23.

Two units; second semester.

Cooke

291ab. The Theory of the Stanza. A seminar course.

Two units; throughout the year.

Gaw

295. The High School English Curriculum. A study of its history, aims, materials, organization, and bibliography. All candidates for the High School Teacher's Credential should enter the course unless they have recently had a survey of the modern literature upon the subject. A graduate course, but not credited toward the degree of Master of Arts.

Three units; first semester.

Gaw

299. Methods of Teaching High School English. After a brief consideration of the function of high school English—language, grammar, and literature—there follows an exposition of the methods in the teaching of those subjects, by which they may be made to contribute to the practical and cultural development of pupils of high school age.

Two units; first semester.

Lunt

Undergraduate Major Work. Thirty semester units, in addition to English 1. In major work in English all students must include courses 20fg and 11lab. History 10lab is required as a collateral course. *Those who contemplate pursuing graduate work for the attainment of the degree of Master of Arts are notified that their undergraduate course must be so planned as to equip them with a reading knowledge of Greek, Latin, French, or German.*

Undergraduate students who contemplate the teaching of English should notify the head of the department of that fact at the beginning of the senior year. Failure to do so may entail complications that will render it impossible for them to secure in the minimum time the endorsement of the department for the teaching of English as a major subject.

Minor Work. Twelve semester units in addition to course 1ab, of which at least six units must be in upper division courses.

Requirements for the High School Teachers' Endorsement: A satisfactory undergraduate English major course of thirty units (exclusive of English 1ab), including English 20fg and 11lab, and accompanied by History 10lab, and by Public Speaking 10lab or 120, or their respective equivalents; and followed by a minimum of six graduate units (or, for teachers of not less than seventeen months of successful experience, of three graduate units), in the English department. The graduate work should include a course in literature and course 299 (which latter, however, is waived in the case of experienced teachers); and course 295 is strongly recommended. In addition, the candidate must pass the first, the third, and the fifth of the "English final examinations for graduate students" described below. Upon the completion of such a course by a candidate of good moral character and satisfactory teaching personality, the English department will by resolution formally endorse him or her as an English major candidate for high school teaching.

Requirements for the Degree of Master of Arts: A satisfactory undergraduate English major course, followed by a graduate course organized as prescribed in the general regulations for the degree of Master of Arts (which see), and compliance with the requirements concerning the "Eng-

lish final examinations for graduate students," as indicated below. Candidates for the degree of Master of Arts in English are also required to offer a reading knowledge of Greek, Latin, German, or French.

The English Final Examinations for Graduate Students. In addition to the regular course examinations there will be required of all English major candidates for the degree of Master of Arts, or for the departmental endorsement for high school English teaching, a more comprehensive test of their fitness for the honors in question. The equipments involved are:

1. A knowledge of the general history of the development of English literature and a personal acquaintance with leading works from its various periods.

2. Special knowledge of one of the main literary periods, movements, or types. In satisfaction of this requirement the candidate may, if he desires, offer the satisfactory completion of a three-unit English course of the nature described, taken as graduate work in this University.

3. The ability to appraise a brief work of literature of any of the well recognized types as to its merits of content, construction, style, and metres.

4. A knowledge of the history of the English language through its three main periods. From this requirement candidates who have attained a grade of A or B in English 111ab as undergraduates in this University are exempt. Other candidates may, if they desire, substitute for it the completion at this University of an English graduate course primarily of a linguistic nature.

5. Skill in the written expression of thought and freedom from objectionable habits of speech. As a rule, this is mainly tested in connection with Point 3.

The above examinations are offered about December 1 and April 1 of each year, and in the Summer Session. They must be taken at some time during the academic year at the end of which the honor in question is to be granted. In general, all candidates for that year should appear in December. Candidates for the departmental endorsement for English high school teaching must pass satisfactorily in the first, third, and fifth points listed. Candidates for the degree of Master of Arts must pass in all and must show marked merit in three of the five points.

FRENCH

Professors Riddle, Bissell, Lowther; Associate Professor Austin; Assistant Professor Saint-Jean; Instructor Ives

LOWER DIVISION COURSES

1ab. Elementary French. Pronunciation, the essentials of grammar, reading of simple prose, conversation, writing, and dictations. Not credited toward a major or a minor.

Five units; throughout the year.

Riddle, Bissell, Lowther, Saint-Jean, Ives

2ab. Intermediate French. Readings from standard French authors, including Balzac, Coppée, Dumas, Anatole France, Hugo, and Maupassant. Composition, conversation, and collateral reading. *Prerequisite:* Two years of high school French, or French lab.

Three units; throughout the year.

Riddle, Bissell, Lowther, Austin, Saint-Jean, Ives

4ab. Elementary French Conversation. This course may be taken simultaneously with French 2ab. *Prerequisite:* French lab or equivalent.

Two units; throughout the year.

Bissell, Ives

5. Commercial French. Business vocabulary, commercial forms and letters, and reading of trade journals. *Prerequisite:* French lab or equivalent.

Two units; second semester.

Lowther

UPPER DIVISION COURSES

104ab. Advanced French Conversation and Composition. A continuation of French 4ab and designed for students wishing to perfect their knowledge of the spoken language. The course consists of lectures in French treating of French life, literature, and customs, of conversation based upon the lectures, of original themes and dictations. *Prerequisite:* French 4ab or four years of high school French.

Two units; throughout the year.

Saint-Jean

105ab. General Survey of the History of French Literature. Reading of selected plays and novels. Conducted in French. *Prerequisite:* French 2ab or equivalent.

Two units; throughout the year.

Bissell, Ives

106ab. French Literature of the Seventeenth Century. A general survey with special attention to Corneille, Racine and Molière. Conducted in French. *Prerequisite:* French 2ab or equivalent. This course alternates with French 107ab. (Not given in 1922-23.)

Three units; throughout the year.

Saint-Jean

107ab. French Literature of the Eighteenth Century. A general survey with special attention to Montesquieu, Vol-

taire, and Rousseau. Conducted in French. *Prerequisite:* French 2ab or equivalent. This course alternates with French 106ab. (Given in 1922-23.)

Three units; throughout the year.

Saint-Jean

109ab. Advanced French Syntax and Composition. A prerequisite of the Teachers' Course and required of all candidates for a major and a teaching minor. *Prerequisite:* French 2ab or equivalent.

Two units; throughout the year.

Austin, Lowther

124. French Phonetics. Nyrop, Manuel phonétique du français parlé; Geddes, French Pronunciation. *Prerequisite:* French 2ab, or equivalent.

Two units; first semester.

Riddle, Austin

125ab. French Dramatists of the Nineteenth Century. Upper division or graduate course.

Two units; throughout the year.

Riddle

GRADUATE COURSES

221ab. French Seminar. Corneille.

Two units; throughout the year.

Riddle

225ab. Old French Grammar and Reading of Old French Texts.

Two units; throughout the year.

Austin

299. Teachers' Course. Methods and aims in the teaching of French in secondary schools. *Prerequisite:* French 109ab and 124, or equivalent. This course may not be credited toward the degree of Master of Arts.

Two units; first semester.

Riddle, Lowther

Undergraduate Major. Twenty-six units, including courses 2ab, 105ab, either 106ab or 107ab, 109ab, 124, and exclusive of 1ab.

Undergraduate Minor. Twelve units, exclusive of course 1ab, one-half of which shall be in upper division courses.

High School Teacher's Recommendation. The requirements for undergraduate major work, course 299, and a minimum of six graduate units, usually including the seminar.

GEOLOGY

Professor Bailey; Associate Professor Sedgwick

LOWER DIVISION COURSES

1. General Geology. A study of the surface features of the earth; their origin; and their relations to human life and industry. Lectures and recitations.

Two units; first semester.

Sedgwick

2. Mineralogy. A study of the properties, uses, and methods of determination of the most important minerals, ores, and gems. Laboratory, recitations, and lectures. *Prerequisite:* Chemistry 2 or its equivalent.

Two units; first semester.

Sedgwick

3. Historical Geology. A study of the history of the earth; the order and nature of the rocks; the fossil life; and the succession of events. Lectures and recitations. Special attention is given to the geology of the Pacific Coast region. *Prerequisite:* Geology 1.

Two units; first semester.

Bailey

5. California Geology. The geo-history of California. Origin of the Sierras and Coast ranges. The origin of Yosemite and Lake Tahoe. The living glaciers and active volcano. The Great Valley, Death Valley, and Great Basin. *Prerequisite:* Geology 1.

Two units; second semester.

Bailey

6. Agricultural Geology. Lectures on the origin, nature, value and classification of soils; control of moisture conditions; and physical analysis of soils.

Two units; first semester.

Bailey

UPPER DIVISION COURSES

107. Petroleum Geology. A study of the nature, origin and geology of petroleum. *Prerequisite:* Geology 1, 3.

Two units; second semester.

Sedgwick

108. Blowpipe Analysis. Determination of ore by blowpipe. Lectures and laboratory. *Prerequisite:* Geology 2.

One unit; second semester.

Sedgwick

112. Commercial Geology. The location, distribution, and political ownership of the most important mineral supplies of the world. Their nature, origin, and uses. Special attention to the large, diversified and unique mineral resources of California. *Prerequisite:* Geology 2, 3.

Two units; first semester.

Bailey

113. Field Geology. Practice in field work following the methods of the United States Geological Survey. *Prerequisite:* Geology 1, 2, 3.

Three units; second semester.

Bailey

114. Paleontology. The study of fossils, showing how past life may be interpreted by the life of the present. *Prerequisite:* Geology 3.

Two units; second semester.

Bailey

115. Petrology, or Rock Classification. The general characteristics, origin, mode of occurrence and nomenclature of rocks, and study of the more common types. *Prerequisite:* Geology 2.

Two units; second semester.

Sedgwick

GERMAN

Professor Borthwick

LOWER DIVISION COURSES

1ab. Elementary German. Pronunciation, reading and grammar, with practice in speaking and writing. This course is intended for students who enter without German. Not credited toward either major or minor.

Five units; throughout the year.

Borthwick

2ab. Intermediate German. For students who have had German 1ab or two years of high school German.

Three units; throughout the year.

Borthwick

4. German Conversation. For those deficient in the oral use of the language. To follow or accompany German 2ab. Not given in 1922-23.

Two units; first semester.

UPPER DIVISION COURSES

101. Commercial German. Business correspondence; banking terms; forms of bills, checks, drafts, etc. Reading, translation and composition. *Prerequisite:* German 2ab.

Three units; first semester.

Borthwick

102. Scientific German. For students specializing in science. *Prerequisite:* German 2ab.

Two units; second semester.

Borthwick

103. Schiller. Study of Schiller's life and works. *Prerequisite:* German 2ab.

Three units; first semester.

Borthwick

104. Heine. Study of Heine's life and works.

Three units; second semester.

Borthwick

107. Goethe. Introductory study of Goethe's life and works.

Two units; first semester.

Borthwick

116. Outline of German Literature. The development of German literature to the lyrics of the thirteenth century. Not given in 1922-23.

Two units; first semester.

117. Outline of German Literature (continued). From the fourteenth century to Goethe. Not given in 1922-23.

Two units; second semester.

129. Goethe's Faust. Part I and selections from Part II. Three units; second semester. Borthwick

130. Hauptmann. A study of Hauptmann's life and works. Not given in 1922-23.

Two units; second semester.

Major Work: Twenty-six units, excluding Courses 1ab and 101, and including Courses 116 and 117.

Minor Work: Twelve units, excluding Courses 1ab and 101, six of which must be in upper division work.

GREEK

Professor Douglas

Courses 210, 212, 214 in Greek New Testament, Divinity Department of the School of Religion may be elected with credit in this department.

LOWER DIVISION COURSES

1ab. Elementary Greek. A study of forms and syntax, followed by reading of stories, myths and legends and exercises in prose composition.

Five units; throughout the year.

Douglas

4. Xenophon. Selections from the Anabasis, the Cyropaedia and the Memorabilia of Socrates. Continued and careful analysis of forms and grammatical construction. *Prerequisite:* Greek 1ab or its equivalent.

Three units; first semester.

Douglas

UPPER DIVISION COURSES

102. Greek Prose Writers. Selected orations of Lysias and Demosthenes; Plato's Apology and Crito. Selections from Herodotus and Thucydides. *Prerequisite:* Greek 4 or equivalent.

Three units; second semester.

Douglas

103. Homer. Book I of the Iliad and selections from several of the other Books. Homeric grammar and vocabulary. *Prerequisite:* Greek 4 or equivalent.

Three units; second semester.

Douglas

GRADUATE COURSES

214. Greek Poets. Comedy and Tragedy. Comparative study of style, grammar and vocabulary.

Three units; second semester.

Douglas

HISTORY

Professors Gilliland, Lowrey, Teeter; Assistant Professor Early

Courses 101, 120, 125 and 200 in Political Science, and 101 and 102 in Biblical Literature are credited toward a major in History.

LOWER DIVISION COURSES

1ab. General History. An introductory course in the study of history. A brief survey of the ancient world, the causes that led to the breakup of the Roman Empire, the social, religious, and political conditions of Mediaeval and Modern Europe.

Three units; throughout the year.

Gilliland

2ab. Social and Political History of Modern Europe. The course deals with the history of Europe from the fifteenth century until the present time and aims to familiarize the student with the political, social and economic influences at work during this period.

Three units; throughout the year.

Gilliland

7ab. Mediaeval History. A general survey of the mediaeval period, with special reference to the development of great institutions, both of church and state. Lectures, readings, and papers.

Three units; throughout the year.

Early

13. History of the United States to 1829. A study of the colonies to the Revolution, and the development of national life through the administration of John Quincy Adams.

Three units; first semester.

Lowrey

14. History of the United States, 1829-1920. Continuation of course 13. Special attention paid to the causes of the Civil War, the period of reconstruction, and to the fields of political and economic development.

Three units; second semester.

Lowrey

UPPER DIVISION COURSES

101ab. History of England and Greater Britain. A course covering the development of British history, with special emphasis on the growth of the Empire.

Three units; throughout the year.

Lowrey

102. History of Japan and the Far East. Early Japan as the pupil of Korea and China. Influence of Buddhism. The rise of feudalism and of the Shogunate. The century of foreign intercourse. The latter centuries of Tokugawa isolation and centralization. The Meiji era. Problems of today.

Two units; first semester

Dixon

103. Chinese History and Civilization. The successive dynasties of the great empire. Foreign relations during the last few centuries. Founding of the republic. Problems of today.

Two units; first semester

Hedley

108. Renaissance and Reformation. A study of the Renaissance as it affected European life and thought, with special reference to artistic, literary, and political features; the Reformation as it affected the religious, economic, and political development of Europe. Open to well qualified Sophomores.

Three units; first semester

Early

110. The French Revolution and the Napoleonic Empire, 1789-1815. A brief review of the Ancient Regime, followed by a study of the political, social, and international aspect of the French Revolution and the Napoleonic Empire. (Sophomores admitted with permission of instructor.)

Three units; second semester

Early

111ab. Europe Since the Congress of Vienna. This course deals with the political and economic movements in Europe after 1815. Special attention is given to the causes of the Great War, the Peace Treaties, and Reconstruction. *Prerequisite:* History 2ab or 110.

Three units; throughout the year

Gilliland

114ab. English Constitutional History. An examination into the origin and evolution of the English Constitution. *Prerequisite:* Course 101ab or permission of the instructor. Open to advanced students.

Two units; throughout the year

Early

115. Recent English Economic and Social History. From 1603 to the present. *Prerequisite:* History 101ab or permission of the instructor.

Two units; first semester (not given 1922-3)

Lowrey

116ab. Pacific Slope History. A special lecture course, beginning with the Spanish Colonial system. The origin of civilization in New Spain; the occupation and development of Alta California and the Oregon territory; the American conquest; the genesis of the Empire State of the Pacific. Special reference to California throughout. This course is designed to be especially helpful to history teachers and those expecting to teach history.

Two units; throughout the year

Hunt

117ab. Expansion of Europe Since the Fifteenth Century. A study of European discoveries, explorations, settlements and the forms of colonial institutions developed.

Two units; throughout the year (not given 1922-3) Gilliland

119. Greek History. A critical study of the conditions of Greek life and thought, making a careful study of the evolution of political and social institutions. Lectures, papers on assigned subjects for research. Open to advanced students and teachers.

Three units; first semester.

Early

120. Roman History. A series of investigations into the genesis, growth, and organization of the Roman State with special emphasis upon the latter Republican and early Imperial period. Open only to advanced students and teachers.

Three units; second semester

Early

121. World Preparation for Christianity. The philosophies and religious systems of the Ancient world are studied with special reference to their influence upon Christianity.

Two units; first semester

Gilliland

124ab. The Expansion of the Ottoman Turks. The political status of the Balkan and the Asia Minor regions before the Ottoman conquests; the building of the Ottoman empire; the struggle of the conquered nationalities for autonomy; the status of the Balkan and Asia Minor regions as determined by the Great War. Open to well qualified Sophomores. (Not given in 1922-23.)

Two units; throughout the year

Early

125. History of Russia. A brief survey of early Russian history is given, but the course deals chiefly with the history of Russia during the century preceding the Great War.

Two units; second semester

Gilliland

128ab. Ancient and Mediaeval Imperialism. An analysis of the bases of the successive empires which dominated ancient and mediaeval life. An examination of the religious and social ideas which developed into the political structures

emerging and culminating in the Holy Roman Empire. Open to Sophomores by arrangement with the instructor.

Two units; throughout the year

Early

130. Latin-American Colonies. A brief survey of Spanish and Portuguese institutions and social conditions at the end of the fifteenth century; colonization, and the development of colonial policy, economic and social conditions in Latin America, to the wars of independence.

Two units; first semester

Teeter

131. Latin-American Republics. A continuation of course 130, from the wars of independence to the present. Special attention will be given to the relations between the republics and the United States.

Two units; second semester

Teeter

140. Current History. Post-war development; national and world problems in their historical setting. Lectures, investigations, and reports.

Two units; second semester

Lowrey

141ab. American Constitutional History. English and colonial background, the constitutional convention, and the development of the constitution up to the present. *Prerequisite:* History 13 and 14, or permission of the instructor.

Two units; throughout the year

Lowrey

162ab. British Rule in India. Careers and policies of Lord Clive, Warren Hastings, Wellesley, Bentinck and Dalhousie. Literary and historical traditions and associations of Bombay, Simia, Peshawar, Lahore, Calcutta, Rangoon and other localities.

Two units; throughout the year

Dixon

GRADUATE COURSES

205. From Jackson to Lincoln. An intensive study of the history of the United States from 1829 to 1861, with emphasis on the growth of sectionalism, and the causes of the Civil War. *Prerequisite:* History 14, or permission of the instructor.

Two units; throughout the year

Lowrey

222ab. Seminar. The Protestant Reformation. As a guide to the study of method, Langlois and Seignobos' "Introduction to the Study of History" is used. Each student must show ability to do thorough research work.

Two units; throughout the year

Gilliland

223ab. Seminar. America's Relations in the Pacific Basin. A course designed to treat world movements in their historical setting as related to the three great politico-geographic fields: (1) The relations to the peoples of the Far East.

(2) British influences in the Pacific Basin in relation to American policies. (3) America's part as related to European world problems.

Two units; throughout the year

Teeter

299. Teachers' Course. A course for those persons who are planning to secure a High School Teacher's Recommendation. The work deals primarily with methods of teaching history in the secondary schools based upon the suggestions of the leading educators throughout the country.

Two units; second semester.

Lunt

Major Work: Thirty semester units, one-half of which must be in upper division courses.

Minor Work. Twelve units, including at least six in upper division courses.

High School Teachers' Recommendations. Students looking forward to High School Certification with History major are expected to complete six units each of Ancient, Mediaeval, Modern, English and American History and courses 216ab and 299.

Major Work for Degree of Master of Arts: A minimum of fourteen units of graduate work, including the History Seminar and a Thesis.

HOME ECONOMICS

Professor York; Instructor Mears

LOWER DIVISION COURSES

1. The Home. A study of the evolution of the family and a brief history of domestic architecture, house planning and decoration. Students are strongly urged to take Art 20ab (Design) parallel with this course.

Two units; first semester.

York

2. Household Problems. A continuation of Course 1. This course considers materials, quality and cost of typical house-furnishings and the care, organization and financial administration of the home.

Two units; second semester.

York

10ab. Selection and Preparation of Foods. This course presents the principles underlying the preparation of different types of foods. It aims not only to emphasize the principles of cookery, but to secure facility in the use of materials and utensils. One recitation and two laboratory periods per week. *Prerequisites:* Chemistry 1a and 1aL, or 2 and 2L, and 1b and 1bL.

Three units; first semester.

York

11. Fundamentals of Cookery. A course for those having high school credit in cookery. One recitation and one laboratory period per week. *Prerequisites:* Chemistry 1a and 1aL, or 2 and 2L, and 1b and 1bL.

Two units; first semester.

York

12. Elementary Nutrition. A study of food requirements and adequate menus. Planned for social workers and others desiring some knowledge of foods. Not credited toward a Home Economics major.

Two units; second semester.

York

50ab. Home Sewing. For students without high school credit in sewing. Fundamental stitches, hand and machine work applied to undergarments and various articles for the home. Design, simplicity, and good taste in school clothes are emphasized.

Two units; throughout the year.

Mears

51. Home Sewing II. An advanced course for students with high school credit in sewing. Elementary dressmaking and drafting, cutting, fitting and making of skirts, waists and dresses. Uses of commercial patterns. A study of line in relation to face and figure. The making of all kinds of articles for the home is emphasized. Two laboratory periods.

Two units; second semester.

Mears

52. Textiles. Study of textile weaves from primitive time to present day. Ancient and modern processes of manufacture, spinning, weaving, finishing, studies in purchasing.

Two units; first semester.

Mears

UPPER DIVISION COURSES

112ab. Preparation and Service of Food. Preparation of dishes for various meals. A study of the food requirements and adequate menus. The second semester each student works on some problem in Experimental Cookery. Two laboratory periods per week. *Prerequisites:* Home Economics 10ab or 11 and Chemistry 1b and 1bL.

Two units; throughout the year.

York

114ab. Nutrition and Dietetics. A study of the composition of foods and their metabolism by the human body. Diets are made. There is an application of the fundamental principles of human nutrition under varying physiological and economic conditions. Two recitations and one laboratory period per week. *Prerequisites:* Home Economics 10ab, Zoology 2L, and Biology 101L.

Three units; throughout the year.

York

155. History of Costume. Survey of industrial and social conditions which have influenced the design of costumes in the different centuries. A study of national costumes.

Two units; second semester.

Mears

160ab. Costume Design. Designing of costumes based upon historic study and the principles of color, harmony and design. There is also offered an excellent opportunity for the practical study of the costume in the large retail stores of the city. *Prerequisites:* Home Economics 50ab or 51, and Art 20ab or 23ab.

One unit; throughout the year.

Mears

162ab. Study of Costume. Practice in application of principles of costume design to the personality of the individual. Free hand pattern making. Two laboratory periods per week. *Prerequisite* or concurrent registration: Home Economics 160ab.

Two units; throughout the year.

Mears

165ab. Millinery. Winter and Summer millinery. The making of wire and buckram frames, and covering them with velvet, braid or straw; lining and finishing. Renovation of materials. One two-hour laboratory period a week each semester. *Prerequisites:* Home Economics 50 or 51.

One unit; throughout the year.

Mears

180. Home Nursing and Home Laundering Problems. A non-professional course in the elements of Home Nursing and Child Care. The work is given by a graduate nurse. The work in laundering includes a study of the equipment, principles and processes involved in general laundering. Two double laboratory periods per week.

Two units; second semester.

York and assistant

199. Teaching Methods in Home Economics. This course is to include a brief study of the Home Economics Movement, the content of courses for the various grades and high school classes, and the lesson plan. A report will be required on a certain number of visits to Home Economics classes in various schools. Students must present satisfactory evidence of knowledge of fundamentals of cookery and sewing. If such evidence cannot be shown additional laboratory courses must be taken. *Prerequisites:* Home Economics 112ab and 162ab.

Two units; first semester.

York

200. Seminar in Nutrition. For those desiring to do special reading on present research in Nutrition. *Prerequisites:* Advanced Organic Chemistry and Home Economics 114.

York

ITALIAN

Associate Professor Austin

LOWER DIVISION COURSES

1ab. Elementary Italian. Essentials of grammar. Composition and conversation. Reading of short stories. Three units; throughout the year. Austin

2ab. Intermediate Italian. Reading from modern Italian writers. Grammar and composition. Conversation. *Prerequisite:* Italian lab or equivalent. Two units; throughout the year. Austin

UPPER DIVISION COURSES

101ab. Dante: "Vita Nuova" and "Divina Commedia." Readings and lectures. *Prerequisite:* Italian lab or equivalent. Two units; throughout the year. Austin

JOURNALISM

Assistant Professor Thompson; Instructor Goodnow

LOWER DIVISION COURSES

1. News and Newswriting. Basis of practical journalistic work. Four or eight laboratory periods weekly, gathering and writing of news, interviews, feature articles; individual criticism. One lecture weekly, the modern newspaper: sources of news, staff organization, and duties; mechanical processes, new problems. Staff work on "Trojan." Three units; first semester. Goodnow

2. Development of Newswriting. Continuation of Course 1. Four or eight laboratory periods weekly. One lecture weekly, history of American journalism and lives of great journalists. Staff work on "Trojan." Three units; second semester. Goodnow

3. Advertising. Theory and practice of commercial publicity. Writing of advertising copy; psychological principles of advertising; typography. Preparation of an advertising campaign. Two units; first semester. Goodnow

4. Newspaper Advertising. Detailed study of this special advertising medium; practical work in connection with "The Trojan." Circulation and advertising rates. Work of the solicitor, advertising agency, newspaper service bureau. Continuation of Journalism 3. Two units; second semester. Goodnow

10. Magazine Writing. Articles. Personality sketches. Illustrated feature stories. Fiction. Development of the Short Story. Plot construction and development. Not given 1922-23.

Two units; first semester.

Goodnow

11. Short-Story Writing. Continuation of Course 10. One lecture weekly. Practical training in short-story building. Literary markets. Editorial needs. Not given 1922-23.

Two units; second semester.

Goodnow

UPPER DIVISION COURSES

100. Editorial Writing. Detailed study of editorial writing and paragraphing, and page make-up. Surveys made of representative American newspapers. *Prerequisite:* Journalism 1 and 2.

Two units; first semester.

Goodnow

101 Feature Writing. Practice in creating and writing special newspaper articles and illustrated features. *Prerequisite:* Journalism 100.

Two units; second semester.

Goodnow

105ab. Advanced Advertising. Field, laboratory and trade investigations required. Students may be assigned to downtown business offices for afternoons. *Prerequisite:* Journalism 3 and 4 or their equivalent. Not given 1922-23.

One unit; throughout the year.

Goodnow

108. The Literary Laws of Editing. The preparation of acceptable articles for current literature; the revision of such articles for the press. Editorial leading articles and comments. How to review. Indexing of books, and other features in their preparation. Literary requirements of a thesis.

Two units; first semester.

Dixon

110ab. Advanced Short-Story Writing. Includes general magazine work; assignments by instructor; consultation and private criticism of manuscripts. *Prerequisite:* Journalism 10 and 11 or their equivalent. Not given 1922-23.

One unit; throughout the year.

Goodnow

120. History of American Journalism. The early types of newspapers. The origin and development of the American press.

Three units; first semester.

Thompson

LATIN

Professor Brown; Assistant Professor Tilroe

LOWER DIVISION COURSES

1ab. Elementary Latin. A course in forms and syntax, followed by the reading of simple prose and selections from Caesar. Intended for students who present no Latin for entrance.

Five units; throughout the year.

Tilroe

2ab. Cicero and Virgil. Selected orations of Cicero; Virgil's Aeneid, selections from books I-VI. *Prerequisite:* Latin 1ab, or two years of high school Latin.

Three units; throughout the year.

Tilroe

3. Cicero and Pliny. Cicero, De Senectute; Pliny, Selected Letters. *Prerequisite:* Latin 2ab or at least three years of high school Latin.

Three units; first semester.

Brown

4. Horace and Catullus. Horace, Odes and Epodes; Catullus, Selected Lyrics. Open to students who have completed Latin 3, and to others by special permission.

Three units; second semester.

Brown

5. Latin Syntax. A review of syntax in lectures and written exercises. *Prerequisite:* Latin 2ab, or at least three years of high school Latin.

Two units; first semester.

Brown

6. Latin Prose Composition. Exercises in writing connected prose. *Prerequisite:* Latin 2ab, or at least three years of high school Latin.

Two units; second semester.

Brown

UPPER DIVISION COURSES

107. Latin Comedy. Plautus; Captivi, and either Trinummus or Rudens; Terence, Andria or Phormio.

Three units; first semester.

Tilroe

108. Livy and Tacitus. Livy, Books XXI and XXII; Tacitus, Germania, Agricola or Selections from the Histories.

Three units; second semester.

Tilroe

109. Cicero's Letters. Selected Letters with special study of contemporary events.

Two units; first semester.

Brown

110. Horace's Satires and Epistles. Selected Satires and Epistles, including the Ars Poetica. Not offered 1922-23.

Two units; second semester.

Brown

111. Roman Elegiac Poetry. Selections from Catullus, Tibullus, Propertius, and Ovid. Not offered 1922-23.

Two units; first semester.

Brown

112. Juvenal and Martial. Selections from the Satires of Juvenal and the Epigrams of Martial.

Two units; second semester.

Brown

115ab. Advanced Latin Prose Composition.

One unit; throughout the year.

Brown

English Translations of the Classics. (English 193fg.) The reading of English translations of Greek and Latin masterpieces, accompanied by a study of the historical development and the salient characteristics of important literary types, and some consideration of their influence upon later literature.

Two units; throughout the year.

Brown

GRADUATE COURSES

218. Cicero and Seneca. Selections from the philosophical writings of Cicero and Seneca. Not offered 1922-23.

Two units; first semester.

Brown

219. Prose Writers of the Empire. Selections from Petronius, Pliny the Elder, Quintilian, Suetonius, and Apuleius. Not offered 1922-23.

Two units; second semester.

Brown

221ab. The Latin Seminar. Subject for 1922-23: Lucretius. The *De Rerum Natura* will be read in its entirety. Passages will be selected for critical study and interpretation.

Two units; throughout the year.

Brown

299. The Teaching of Latin. A study of problems and methods.

Two units; first semester.

Tilroe

Undergraduate Major. Twenty-six units, including Latin 3, 4, 5, 6, and 115, exclusive of Course lab. A student may graduate as a Classical Major who presents twenty units of Latin and at least twelve units of Greek.

Undergraduate Minor. Twelve units, exclusive of Course lab, and including Latin 5 or 6, and at least one upper division course.

High School Teacher's Recommendation. An undergraduate major course followed by a minimum of six graduate units in this department, including 299.

MATHEMATICS

Professor Willett; Assistant Professor Steed; Instructor Conn

LOWER DIVISION COURSES

Aab. Plane Geometry. Elementary geometry for students not presenting entrance credit in Plane Geometry.

Three units; throughout the year. Conn

1ab. Theory of Algebra. A lecture and text book course in college algebra.

Three units; throughout the year. Willett

2. Solid and Spherical Geometry. The fundamental propositions of the Euclidean geometry of space.

Three units; first semester. Conn

3. Trigonometry. Plane trigonometry and its applications, and logarithms.

Three units; first semester, repeated the second semester.

Steed, Conn

4ab. Algebra. A rapid review of elementary algebra and a study of the usual topics of college algebra. This course is planned especially for students in Engineering. Students with credit in Math. 1ab may not receive credit for this course.

Three units, first semester; two units, second semester.

Willett

5. Advanced Trigonometry. Advanced plane trigonometry and spherical trigonometry. This course is planned especially for students in Engineering. *Prerequisite:* Course 3, or entrance Trigonometry.

Two units; first semester.

Willett

6. Plane Analytic Geometry. The analytic geometry of the straight line, the circle, and the conic sections, including a brief discussion of the general equation of the second degree and some special examples in higher loci. *Prerequisite:* Course 3, or entrance trigonometry.

Three units; second semester.

Steed, Willett

7. Differential Calculus. Development of the fundamental principles and formulas, and applications to various problems in geometry and analysis. *Prerequisite:* Course 6.

Three units; first semester.

Steed

9. Mathematical Theory of Investment. A brief review of topics needed for the main theory, and then a careful study of interest, annuities, amortization, valuation of bonds, sinking funds, building and loan associations, life annuities and

life insurance. This course is planned especially for students in Commerce. *Prerequisite:* At least one and one-half years of high school algebra.

Five units; first semester.

Steed

UPPER DIVISION COURSES

108. Integral Calculus. The general principles of the integral calculus are developed, and the usual applications made to centers of gravity, to moments of inertia, and especially to geometry. *Prerequisite:* Course 7.

Three units; second semester.

Steed

111ab. Analytical Mechanics. The mathematical treatment of statics, kinematics, and dynamics. *Prerequisite:* Courses 7 and 108.

Three units, first semester; two units, second semester.

Lawrence

113. Synthetic Projective Geometry. The course in Synthetic Projective Geometry aims to give the student an introduction to some of the methods and results of modern synthetic geometry. In general the development will follow that given by Reye in the earlier parts of his "Die Geometrie der Lage." The theorems of Pascal and Brianchon are proved and numerous applications made to the theory of conic sections. Other topics that are treated are pole and polar theory of the conic, involution, ruled surfaces of the second order, and the plane unicursal cubic.

Two units; first semester.

Steed

114. Plane Algebraic Curves. This course aims to give an introduction to that wide field of modern geometry included in the study of plane algebraic curves. Among the topics studied are: Singular points, curve-tracing, tangential equations and Plücker's formulae, numerous applications being made to cubics and quartics.

Two units; second semester.

Steed

115. Theory of Numbers. An introduction to the Theory of Numbers. The topics studied are: Elementary properties of numbers, the indicator of an integer, elementary properties of congruences, theorems of Fermat and Wilson, primitive roots.

Two units; first semester.

Willett

120ab. Advanced Analytic Geometry and Differential Equations. The analytic geometry is a continuation of Course 6, and includes a brief course in analytic geometry of three dimensions. The course in differential equations is elementary and open to students who have taken Course 108.

Two units; throughout the year.

Steed

GRADUATE COURSES

212ab. Theory of Functions of a Complex Variable. A course covering the usual field, and making use of the methods of both Riemann and Weierstrass, with emphasis on the method of Riemann. (Not given in 1921-22.)

Three units; throughout the year.

Steed

216. Selected Topics in Mathematics. The study of certain phases of advanced mathematics which have points of contact with the elementary field. Selections made from the following topics: The foundations of geometry, modern pure geometry, non-Euclidean geometry, the fundamental propositions of algebra, the algebraic equation, the function concept and the fundamental notions of the calculus, the theory of numbers, constructions with ruler and compasses, the history and transcendence of π .

Two units; second semester.

Willett

299. Teachers' Course. A study of the methods of presenting elementary algebra and geometry for those preparing to teach mathematics in secondary schools. Assigned readings and reports.

Two units, first semester; repeated the second semester.

Willett

Major Work. Thirty semester units, not including Course A.

Minor Work. Twelve semester units, not including Course A and including Courses 7 and 108.

Teaching Minor. Courses 1, 7, and 108.

Teaching Major. (Undergraduate.) Courses 1, 2, 3, 5, 6, 7, 108, and eight units selected from Courses 113, 114, 115, 120, or 216. (Graduate.) For inexperienced teachers, Course 299.

MUSIC

Professors Wagner, Pemberton, Howell; Instructor Perkins

The requirements for the combination of the Degree of Bachelor of Arts, the Elementary School Certificate and the Special Secondary School Certificate in Music may be summarized as follows:

(a) 94 units of undergraduate work in the College of Liberal Arts, exclusive of any units in music. This work must include the requirements for the A.B. degree, with the following modifications: (a) A major requirement of 24 units. (b) An upper division requirement of 24 units.

(b) The course in Public School Music in the College of Music. The units in Education listed in this course may be taken in the 94 units required in the College of Liberal Arts.

Credit towards the A.B. degree will be given for the courses in music listed below, subject to the following conditions: (1) A freshman may receive credit for not more than three units in music a semester; a sophomore for not more than five units a semester. (2) Not more than 24 units in music may be counted towards the 124 units required for the A.B. degree. (3) Of the 24 units allowed, not more than 12 units may be in advanced applied music.

A special fee is required for each of the following courses:

LOWER DIVISION COURSES

1ab. Sight Singing, Elementary. Elements of notation. Tone and rhythm thinking. Terminology. Individual and class singing at sight of music of moderate difficulty. Three hours a week.

One unit; throughout the year.

Wagner

2ab. Ear Training, Elementary. This work involves recognition and reproduction of melodies, rhythms, intervals and chords. Four hours a week.

One unit; throughout the year.

Perkins

3ab. History and Appreciation. Primitive music. Music of the Greeks. Mediaeval music. Church music and the folk song. The Renaissance and Reformation. The Classic Period. Italian and French opera. The Romantic Period. Development of the Art Song, the pianoforte and its music, the orchestra and new forms.

Two units; throughout the year.

Wagner

4ab. Theory. Acoustics, the orchestra, rhythm, notation, musical terms, embellishments, phrasing, etc.

Two units; throughout the year.

Pemberton

5ab. Sight Singing, Advanced. Individual and class singing at sight of one, two, three and four part music. Reading of difficult choruses and selections from standard operas and oratorios. Three hours a week.

One unit; throughout the year.

Wagner

6ab. Harmony. Tone thinking, ear training. Intervals developed from overtone basis. Scales. Intervals in scale relation, chord structure, keyboard application, chord relationship. Tonic and dominant seventh harmonies and their inversions. Cadences. Elementary form. Harmonization of simple melodies by section and phrase. Embellishing tones. The subdominant harmony.

Three units; throughout the year.

Perkins

7ab. Harmony. Completion of the remaining diatonic harmonics and their inversions. Simple modulations to nearby related keys. Harmonization of melodies. Simple piano accompaniments. Keyboard work. Chromatic harmonies. Modulations through common chord and common tone. Original melodies involving these problems. Keyboard sequences and modulations.

Three units; throughout the year.

Howell

UPPER DIVISION COURSES

100. Harmony. The augmented sixth and neapolitan sixth. Advanced modulation. Harmonization of difficult melodies. Creative work. Discussion and illustration of various phases of modern harmony.

Three units; first semester.

Howell

101. Ear Training, Advanced. The advanced work in ear training includes harmonic material. Students respond orally by syllable and with written staff notation. Four hours a week.

One unit; first semester.

Howell

110. History and Appreciation. Modern music. Growth of nationalism in music. The various schools. The operatic revolution. Impressionism, new harmonic technic, and modern polyphony.

Two units; second semester.

Wagner

103. Counterpoint. Single counterpoint in all orders, two, three and four voices.

Two units; second semester.

Pemberton

Advanced Applied Music (Voice or Instrumental). Two lessons a week for one semester, two units. One lesson a week for one semester, one unit. Maximum credit, twelve units.

ORIENTAL LANGUAGES

Professor Hedley

2ab. Japanese Colloquial. Grammar of the spoken language, with exercises. Study of the Romaji system of transliteration.

Three units; throughout the year.

3ab. Chinese Mandarin Language. An introduction to the language spoken by three-fourths of the Chinese people, sufficient to enable the new arrival to use those common expressions which he will most need on his arrival in the country.

Three units; throughout the year.

Hedley

PHILOSOPHY

Professor Flewelling; Instructor Beardslee

Psychology 1 is a prerequisite for all upper division courses in Philosophy. Education 200 and 201, Sociology 200 and 201 will be accepted as credit toward a major in Philosophy.

LOWER DIVISION COURSES

1. Problems of College Life. How to study, the choice of a college course, the use of the library, collateral reading, traditions, principles of success and leadership. Advised for freshmen and sophomores.

One unit; first semester.

Flewelling

2. Introduction to the Problems and Scope of Philosophy. An elementary study introducing the student to the problems, terminology, and field of philosophy.

One unit; second semester.

Flewelling

51. Logic. The requirements and fallacies of formal logic and the elementary principles of thought and knowledge.
Prerequisite: Philosophy 2.

Three units; first semester.

Beardslee

52. Ethics. The general nature of moral conduct, current ethical theories and the application to practical life.
Prerequisite: Philosophy 2.

Three units; second semester.

Beardslee

UPPER DIVISION COURSES

101ab. History of Philosophy. The leading systems of thought from the time of the early Greeks to the present.
Prerequisite: Philosophy 2 or Psychology 1.

Three units; throughout the year.

Flewelling

102. Theory of Thought and Knowledge. The nature, origin and validity of knowledge, critical and constructive.
Prerequisite: Philosophy 101ab.

Three units; first semester.

Beardslee

103. Metaphysics. The theory of being, reality, the world, self, and God. *Prerequisite:* Philosophy 101ab or 102.

Three units; second semester.

Beardslee

120. Theism and the Philosophy of Religion. An examination of the leading theories offered in explanation of the ultimate nature of reality. *Prerequisite:* Philosophy 2 or 51.

Two units; second semester.

Healy

140ab. Oriental Philosophies and Religions. During the first semester the philosophical systems of the East, partic-

ularly of Hindustan, will be studied. In the second semester attention will be devoted to the religions of Asia, and their literary expression in such records as the Bhagavad Gita, or "Song Divine" and the Koran.

Two units; throughout the year.

Dixon

150ab. Philosophical Movements in Literature. The Greek philosophies of life and their reappearance in literature ancient and modern. Lectures, readings, and themes. *Prerequisites:* Philosophy 101ab, English 20fg, or History 1ab.

Three units; throughout the year.

Flewelling

151ab. Contemporary Thought. In the first semester, Bergson and neo-realism, in the second semester, other leading contemporary philosophers. Lectures, assigned readings and themes. *Prerequisite:* Philosophy 102 or 103.

Three units; throughout the year.

Flewelling

160. Personalism. Personality as the foundation of perception and thought, the ground of being, and the relation of personalism to other systems. Not given 1922.

Two units; summer session.

Flewelling

201ab. The History of Thought. Special reference will be given to the development of the personalistic idea, the relation to Christian origins, and present philosophical development. Continuous course open to Seniors and Graduates. Readings and special themes. *Prerequisite:* Philosophy 101ab.

Three units; throughout the year.

Flewelling

Major Work. Thirty semester units.

Minor Work. Twelve semester units.

PHYSICAL EDUCATION

Professor LaPorte; Associate Professor Berryman; Assistant Professors Williams, Lee; Head Coach Henderson; Track Coach Cromwell; Assistant Football Coach Hunter; Medical Examiners and Advisers Moody, Brown; Lecturer Caldwell

All freshmen and sophomores spend a minimum of two hours per week in some form of gymnastics or athletics, the form to be determined by examinations, efficiency tests, and consultation with instructors. Those satisfying required physical prerequisites are permitted to elect any form of organized athletics (either varsity or intramural) desired, in place of General Gymnastics. Students who are unable to satisfy departmental requirements as to posture, general health, and physical development at the end of the sophomore year are required to continue the work until the required standards are met.

Students majoring in Physical Education are required to take the following courses in other departments: Biology 1 (Personal Hygiene), Biology 2 (Sanitary Science), Psychology 107 (Child Psychology), Sociology 110 (The Play Movement), Sociology 111 (The Supervision of Play), Zoology 2L (Physiology), Zoology 107L (Mammalian Anatomy).

Students majoring in Physical Education are strongly urged to elect the following courses in other departments: Biology 101L (General Bacteriology), Chemistry 1b and 1bL (Inorganic Chemistry), Home Economics 114ab (Dietetics), Public Speaking 5 (Public Speaking), Physics 1ab (Elementary Physics), Sociology 109 (The Sociology of Play), Sociology 112 (Social Uses of Leisure Time), Sociology 120 (Community Organization).

1ab. Freshman Gymnastics. Separate sections for men and women. The practical work two hours each week includes corrective and postural work, general gymnastics, and class athletics. The theory work, one day a week, covers the nature and purpose of the physical education work, personal and special hygiene, first aid, etc. Men who report for Freshman Athletic squads will attend the theory class, and will complete the semester before or after the athletic season in some other practical class to secure credit.

2ab. Sophomore Gymnastics. Minimum of two hours per week throughout the year; one unit each semester. Separate sections for men and women. A. Athletics (Interscholastic), B. Boxing (men), G. Advanced Gym., O. Outdoor Sports, S. Swimming, T. Tumbling (men), W. Wrestling (men).

15. Principles of Physical Education. The underlying principles of organization, classification, leadership, and administration of physical training work. Special attention given to general health problems, eugenics, the need of reforms in physical education. Study and comparison of systems, history of the movement, relation of physical education to other educational activities. An introduction to other courses in the department.

Two units; first semester.

LaPorte

16. First Aid. Emergency treatment of fainting, shock, wounds, hemorrhage, unconsciousness, sprains, dislocations, fractures, poisons, drowning, etc. Method and content of Hygiene teaching.

Two units; second semester.

Lee

22. Elementary Folk Dancing. A practical study of folk dances arranged to meet needs of schools and playgrounds. Special attention given to methods of presentation. Two hours per week.

One unit; first semester.

Williams

23. Advanced Folk Dancing. Advanced folk and national dances intended for secondary school purposes, festivals, and pageants. *Prerequisite:* Course 22 or its equivalent. Two hours per week.

One unit; second semester.

Williams

24. Elementary Aesthetic Dancing. Fundamental principles of aesthetic technique. Two hours per week.

One unit; first semester.

Williams

25. Advanced Aesthetic Dancing. Continuation of Course 24, which is a prerequisite. Advanced aesthetic work for high schools and clubs. Two hours per week.

One unit; second semester.

Williams

UPPER DIVISION COURSES

102 Organization of Recreation Program. Methods of organizing and conducting social and recreational activities in churches, clubs, and other organizations. Social programs; organized recreational activities. A general social recreation training course for religious and social workers.

Two units; second semester.

LaPorte

104. Human Anatomy. Study of texts, and demonstrations of skeletons, charts, mannikin, cadaver, and living models. *Prerequisite:* Zoology 107L.

Five units; first semester.

Williams

106. Applied Methods in Formal Activities. A normal course in methods of conducting postural instruction, marching and gymnastic drills, and special corrective exercises. Sample lessons are taught under the direct supervision of the instructor, and constant practice teaching provided.

Two units; first semester.

LaPorte and Staff

107. Applied Methods in Play Activities. A continuation of Course 106, which is prerequisite. Methods of organizing and conducting massed athletics, rhythmic games, folk dancing, graded games, light apparatus, heavy apparatus, combative activities, swimming, and outing activities. Sample lessons and practice teaching as above.

Two units; second semester.

LaPorte and Staff

111. Physiology of Exercise. A study of the direct effect of exercise of various kinds on health, considering heat, combustion, fatigue, breathlessness, exhaustion, overwork. Special attention given to training athletes.

Two units; first semester.

LaPorte

112. Applied Anatomy and Kinesiology. A practical study of the muscular mechanism of the human body showing the action of the various groups of muscles in determining posture, and an analysis of their actions in gymnastic movements, games and athletics, industrial occupations. *Prerequisite:* Course 104.

Two units; second semester.

LaPorte

115. Physical Examinations (Structural). Methods of conducting physical examinations and tests for purpose of determining classification of pupils for regular or special activities; tests for abnormalities, posture, sight and hearing. Prescription of exercise.

Three units; first semester.

Berryman

116. Physical Examinations (Functional). Examination of heart, lungs, abdominal organs, etc., for signs of weakness.

Three units; second semester.

Williams

120. Health Supervision and Growth Control. Methods of supervising personal health habits of school children; inspecting for contagious diseases, skin and scalp infections, defects of eyes, nose, throat, and teeth; inspecting sanitary conditions of school plant; making seat adjustments.

Three units; second semester.

Berryman

125. Organization and Administration of Physical Education Department. Planning and constructing the gymnasium, arrangement and care of equipment; care and administration of courts, fields, buildings; organization of staff, leaders; programs, schedules.

Two units; second semester.

Berryman

130. Coaching Methods. A training course for athletic coaches considering coaching principles and methods for football, basketball, track, baseball, tennis, etc. Separate sections for men and women.

One unit; second semester.

Lee and Williams

135. Massage and Corrective Gymnastics. Theory and practice of massage, with clinical experience. Practice in use of corrective gymnastics for physical defects.

Two units; second semester.

Williams

140. Boy Scout Activities. Scoutmaster's training course. Nature and content of Boy Scout program. Organization and administration of Scout Troops.

One unit; second semester.

Lee

141. Campfire Girls' Activities. Nature and content of the Campfire program, with practice in the conduct of activities. One unit; second semester. ()

144. Boys' Work Methods. Methods of organizing and conducting boys' groups in clubs, Sunday Schools, Y. M. C. A. Charting the boy. One unit; second semester. Caldwell

151. Practice Teaching. Four units of practice teaching in public schools or the University high school are required of all applicants for the California certificates.

160. Growth Divergences. A course emphasizing growth deviations and defects; the divergencies of the child from the normal. Two units; first semester. Williams

199. Theory of Teaching and Leadership. A teachers' course in the fundamentals of teaching, class organization, discipline, and leadership of activities. Two units; first semester. LaPorte

Major in Physical Education. A minimum of thirty semester units; course to be arranged with the head of the department.

Minor in Physical Education. A minimum of twelve semester units; course to be arranged with the head of the department.

Special Certificate Courses. The University is authorized by the State of California to issue the following teachers' certificates:

(a) **General Physical Education Certificate** (Secondary Grade). A four-year course with major in Physical Education. This certificate entitles holder to teach all forms of physical education in elementary or high schools. The course must include the following:

1. Four years' practical experience in physical training activities in Courses 1 and 2, averaging 6 hours a week for first two years, and ten hours a week for last two years.

2. Foundation Sciences (anatomy, physiology, hygiene, sanitation, and prerequisites)—35 units.

3. Physical Education Theory and Procedure (Courses 15, 16, 22, 23, 24, 25, 104, 106, 107, 109, 110, 111, 112, 113, 115, 116, 120, 125, 135, 151, 160)—35 units.

4. Educational courses and practice teaching (part of which is included in physical theory)—12 units.

5. General College Requirements (English, Science, Foreign Language, Psychology, History, Economics, Bible)—34-44 units.

(b) **General Physical Education Certificate (Elementary Grade).** A three-year course similar to the Secondary Course, but with several modifications. This certificate entitles holder to teach all forms of physical education in elementary schools only. Students desiring this certificate should confer with the head of the department for details.

(c) **Limited Certificate (Secondary Grade).** A shorter course, with minor in physical education. Certificate entitles holder to teach activities only. The course must include the following:

Psychology, 3 hours; **Biology**, 5-8 hours; **Human Physiology**, 3 hours; **Child Psychology**, 3 hours; **Theory of Teaching**, 3 hours; **Personal Hygiene and First Aid**, 2 hours; **Organization of Physical Education Program**, 2 hours; **Special Physical Education Methods**, 2 hours; **Participation in Physical Education activities**, 6 hours; **Practice Teaching**, 1 hour. For details of the course confer with the head of the department.

Certificate and Diploma Courses for Church Recreation Directors. These courses are established because of the great demand for trained recreation leaders for church work:

Course I. Certificate as Church Recreation Leader. Minor in Physical Education, including following courses: 1, 2, 15, 16, 102, 106, 107, 110, 140. Also ten (10) units in Religious Education (to be arranged) and related courses in Biology, Psychology, and Sociology.

Course II. Diploma as Church Recreation Director. Constitutes major in Physical Education when preceded by Course I, which is prerequisite. Includes additional Physical Education courses 109, 113, 120, 130, and further participation in activities. Also eight (8) units additional Religious Education courses and further related courses in Biology, Sociology, and Education. For details confer with the head of the department.

PHYSICS

Professor Nye; Assistant Professor Clark; Instructor Broadwell

For additional courses in theoretical and applied Physics see courses in Civil, Electrical, and Mechanical Engineering.

LOWER DIVISION COURSES

1ab. General Elementary Physics. A course intended for those who have not studied high school physics. Lectures,

recitations, demonstrations and laboratory exercises dealing with the principles and applications of physics. Recommended for non-technical students. Class work three hours per week, laboratory work three hours per week.

Three units; throughout the year.

1abL. General laboratory courses to accompany lab.
One unit; throughout the year.

2. Mechanics. Lectures and recitations.
Three units; first semester.

3L. Mechanics. Laboratory course. Three hours during one afternoon of each week.
One unit; first semester.

4. Heat. Lectures and recitations.
Two units; first semester.

5L. Heat. Laboratory course. Three hours during one afternoon of each week.
One unit; first semester.

6. Electricity. Lectures and recitations.
Three units; second semester.

7L. Electricity. Laboratory course. Three hours during one afternoon of each week.
One unit; second semester.

8. Light. Lectures and recitations.
Two units; second semester.

9L. Light. Laboratory course. Three hours during one afternoon of each week.
One unit; second semester.

Note—Courses 2 to 9, inclusive, require a knowledge of high school physics and trigonometry. They are recommended for students pursuing scientific or technical studies. In the laboratory courses, instruction sheets prepared by the department are the basis for the work. The experimental work performed by the students is similar to that described in Millikan's "Mechanics, Molecular Physics and Heat" and Miller's "Laboratory Physics." Courses 3 and 5 may be taken coincidentally, half of the time being spent on each, and half credit received. The same is true of Courses 7 and 9.

50ab. Pre-Medical Physics. A course similar to course lab but adapted especially for those preparing for the study of medicine.

Three units; throughout the year.

50abL. A laboratory course to accompany 50ab.
One unit; throughout the year.

UPPER DIVISION COURSES

107L. Electrical Measurements. A laboratory course in which the theory and methods of exact electrical determination are taken up, including the determination of resistance by various methods, galvanometer constants, the measurement of current and electromotive force, insulation tests, hysteresis and permeability tests, the calibration of instruments, etc. Six periods each week.

Two units; either semester.

108. Physical Optics. Study of theories of refraction and reflection, diffraction, interference, polarization, relativity, electron theory, etc.

Two or three units; first semester.

109L. Advanced Light Laboratory. To accompany course 108.

One unit; either semester.

110. Sound. General principles, theory of vowel sounds, construction of musical instruments, architectural acoustics.

Two units; first semester. Not given in 1922-23.

111L. Physical Measurements. To accompany course 110.

One unit; first semester.

112. Photometry and Illumination. Lectures and recitations. A study is made of the physiological and physical phenomena of artificial illumination, methods of measurement, types of photometers, types of illuminants and their characteristics, reflectors, and the principles of interior and street illumination.

Three units; first semester.

113L. Photometry. A laboratory course to accompany Physics 112.

One or two units; first or second semester.

114. Geometrical Optics. Study of lenses, mirrors and prisms. Optical systems. Aberrations. Design of optical instruments, especially military instruments used in gun-fire control.

Three units; second semester.

116. Physics of the Air. A course of lectures, recitations and demonstrations dealing with atmospheric temperature phenomena, composition, and circulation; hygrometry; storms; electrical phenomena; elementary atmospheric optics; and factors of climatic control.

Three units; first semester.

118. Kinetic Theory. An introduction to the method of statistical mechanics as used in the derivation of relations between various gas and liquid constants. *Prerequisites:* General Physics and Calculus.

Two units; second semester.

120. Descriptive Astronomy. A course in general astronomy intended to give the student a physical picture of the universe. Time is also given to discussion of constitution of the sun, habitability of the planets and other problems of general interest. *Prerequisites:* General Physics and Trigonometry.

Three units; first semester.

126. Electricity. An advanced course in the principles and theorems of electricity. *Prerequisite:* Physics 6.

Two units; second semester.

127L. Physical Measurements. Laboratory course to accompany 126.

One unit; second semester.

GRADUATE COURSES

299. Teachers' Course. Lectures and discussions of methods of presenting and teaching various parts of Physics; and the equipment and management of the laboratory.

Two units; second semester.

216. Advanced Electrical Theory. A course dealing with modern theories of electricity and the structure of matter.

Two units; second semester.

218. Ions, Electrons, and Radiations. A course dealing with vacuum tube phenomena, ionization and allied topics.

Three units; first semester. Not given 1922-23.

219L. Laboratory course to accompany course 218.

One unit; first semester.

Major Work. Thirty units in Physics, of which six may be in Engineering.

Minor Work. Twelve units, including at least six units of upper division work.

High School Teacher's Certificate. The candidate must complete the equivalent of a major and, in addition, eight units of advanced work, including course 299. He must demonstrate his ability to pursue methods of thinking and experimenting, which are in accord with modern scientific investigation.

POLITICAL SCIENCE

Professor Malcom; Assistant Professor Harley; Lecturer Inui

LOWER DIVISION COURSES

1ab. Introduction to Political Science. The historic origin of political science; theories of the State; the nature of sovereignty; the structure and province of government. Lectures, reading, reports.

Two units; throughout the year.

Malcom

2ab. Elementary Law. A study of elementary law, involving the use of a textbook, lectures, cases, and special readings. Designed specially for those students who, though not intending to enter the legal profession, desire to have an elementary knowledge of law.

Two units; throughout the year.

McClellan

UPPER DIVISION COURSES

100ab. International Law and Relations. A course designed to acquaint the student with the general principles of international law; discussion of current international events; study of the diplomatic and consular service. Class debates on selected topics.

Two units; throughout the year.

Harley

101ab. Parties and Governments of Europe. A study of the governments and present political parties and problems of the principal European countries; a comparison of European methods with those of the United States. Graduate credit is granted for this course.

Two units; throughout the year.

Harley

105. The Political Institutions of China. A development of the study in Chinese history and civilization. The land and the people; family, village and county government under the Empire. Modern China, following the establishment of the Republic; the new Constitution; customs and civil services; the educational developments; the foreigner in China and questions of extra-territoriality.

Two units; second semester.

Hedley

106. The Government of England. A study of origin, development and working of English government with particular attention to principles carried over to the United States. (Not given in 1922-23.)

Two units.

107ab. Municipal Government. The rise and growth of the modern city. Chief emphasis is placed on American

municipal government. Political, administrative and social problems discussed.

Two units; throughout the year.

Malcom

116. Pacific and Far Eastern Questions. American and European interests in the Far East. Balance of power. Spheres of influence. China in revolution. Rise of Japan. The Far East and the World War and peace. The Washington Conference. (Not given in 1922-23.)

119. State and Local Government. A study of state and local government in the United States, with special emphasis upon California. The state legislature, state executive, and other state officials. Study of county government. Reports and class room discussion.

Three units; first semester, repeated the second.

Malcom

120ab. International Organization. An historical study of the attempts at international cooperation, including the Achaean League of the Greeks, the Holy Alliance, the Pan-American Conferences, The Hague Conferences, the League of Nations, the Washington Conference on the Limitation of Armament and Far Eastern Questions, and the Permanent Court of International Justice.

Two units; throughout the year.

Harley

125. American Political Parties and Practical Politics. The formation of political parties in the United States; the parties in operation, nomination and election of the president; methods of representation and voting; the importance of parties in the governmental system of the United States.

Three units; first semester, repeated second semester.

Malcom

130ab. American Constitutional Law. Study of the leading cases involving the constitution of the United States with the view of discovering how the original document has been expanded by judicial interpretation. Consideration of the federal and state judicial systems as they involve the federal constitution. Designed to supplement the course on American Government, 200ab. (Open to pre-legal sophomores.)

Three units; throughout the year.

Harley

200ab. American Government. A study of national government in actual operation. Special attention given to the practical administration of government. Lectures, reports, and special investigations.

Three units; throughout the year.

Malcom

Major Work, Thirty semester units, one-half of which must be in upper division courses. In meeting the requirement for the major, courses may be chosen, with the approval

of the department, from other fields, particularly the fields of History and Economics.

Minor Work. Twelve semester units, including at least six in upper division courses.

PSYCHOLOGY

Professor Todd; Assistant Professor Cummins

Students majoring in Psychology may elect with credit toward a major, Education 132, Religious Education 110, and Sociology 100 and 158.

LOWER DIVISION COURSES

1. General Psychology. Lectures, collateral reading, classroom demonstrations, supplemental elementary experimental work.

Three units, first semester; repeated the second.

Todd, Cummins

4ab. Elementary Experimental Psychology. The purpose of the course is to acquaint the student with the methods of laboratory psychology, thus preparing him for advanced experimental work and at the same time giving him a more intimate knowledge of the facts and principles of general psychology.

Three units; throughout the year.

Todd and assistants

6. Introduction to Comparative Psychology. A study of the behavior of animals and organisms lower than man. The instincts and intelligence of animals are given particular study. The purpose of the course is to supplement the general problems of human psychology by drawing from the lower fields. *Prerequisite:* Psychology 1.

Two units; second semester.

UPPER DIVISION COURSES

104. Applied Psychology. Business psychology is represented in the fields of advertising, salesmanship and personnel analysis; medical psychology in suggestion, psychotherapy and psychodiagnosis; legal psychology in the fidelity of report and criminal psychology. Each phase is illustrated by standard tests. *Prerequisite:* Psychology 1.

Two units; first semester.

Todd

107ab. The Principles of Child Psychology. A standard course in the growth and development of the pre-adult mind, leading to a better understanding of the child problems of the home and school. Fundamental in the analysis and

description of the adult mind. An extended study of the psychology of adolescence makes up the greater part of the second semester's work. *Prerequisite*: Psychology 1. Three units; throughout the year. Todd

111. Genetic Psychology. A study of the genesis and evolution of conscious processes and behavior. Types of animal behavior, racial and individual development. *Prerequisite*: Psychology 1. Psychology 6 and 107 are also recommended.

Three units; second semester.

116. Physiological Psychology. The basis of this course is a text and lectures with illustrative experiments. Recommended to psychology major and premedical students. Open to those with Psychology 1 and training in physiology. Two units; first semester. Todd

GRADUATE COURSES

205. Seminar. The Psychology of Learning. First semester: the principles and laws of learning and the transfer of training. Second semester: the correlations and individual differences among mental traits. The best-known studies in these fields are the basis of the course.

Two units; throughout the year.

Todd

206. The Theory of Psychological Tests and Measurements. The derivation and reliability of standards. The analysis of normal, subnormal and superior mental types.

Two units; first semester.

Todd

207. An Empirical Study of Standard Psychological Tests. Open to those who have had Course 206 or equivalent. A practicum in the use of standard tests and the interpretation of test results. Supplemented by psychological clinic work.

Two units; second semester.

Todd

208. Psychological Research and Thesis. During the year 1922-1923, research problems as the basis for the degree of Master of Arts in Psychology may be chosen from the following fields: (1) general experimental psychology; (2) psychological tests and statistics; (3) business psychology—advertising or personnel psychology.

Units to be arranged.

Major Work. Thirty units required, including Psychology 4ab or 111, Education 132 and Philosophy 51.

Minor Work. Twelve units.

RELIGION

Professors J. F. Fisher, Healy, Hill, Montgomery, Teeter, Lena L. Fisher, Hedley; Assistant Professors _____; Instructor Price; Lecturers McCombs, Oxnam

Biblical Literature and Principles of Religion

Twelve units may be elected with the approval of the head of the Department from Education 102 and 132; History 130 and 131; Physical Education 102; Philosophy 52 and 120; The Church and Its Program 100, 120, 113, 135, 111, and 112; Religious Education 110 and 122; and Sociology 103, 110, 120, 158, and 165.

LOWER DIVISION COURSES

1. **Heroes of the Old Testament.** A survey course covering the early history of the Hebrew people, tracing the movements of their patriarchal and political leaders, and noting their reflection of developing religious life and belief.

Two units; first semester.

2. **The Prophet Reformers of the Old Testament.** A study of the various activities of the Hebrew prophets as teachers, preachers, statesmen, and social reformers; their respective contributions to the advancing religious thought of Israel.

Two units; second semester.

3ab. **The Life and Teachings of Jesus.** A detailed study of the personality, life, and public ministry of Jesus in chronological order. Careful attention will be given to questions concerning his birth, baptism, temptations, miracles, transfiguration, crucifixion and resurrection.

Two units; throughout the year.

UPPER DIVISION COURSES

100. **The Religious Development of Early Israel.** A study of Israel's early history, outstanding persons, principal events, early religious and moral practices; with especial emphasis upon the emergence and development of ruling ideas to the time of the great prophets. Open to juniors who have not had Bible Literature 1.

Three units; first semester.

102. **The Messages of the Great Prophets.** An historical survey of Israel from the time of Amos to the end of the Old Testament times, with particular stress upon the work and teaching of the great prophets; their unique relation to state, church, social life and development of religion. Open to juniors who have not had Bible Literature 2.

Three units; second semester.

103. **The Life and Teachings of Jesus.** A study of the life, teachings, work, and significance of Jesus Christ as

viewed in the light of modern scholarship. Special emphasis is laid upon the living authority of Jesus and the ruling ideas of the Sermon on the Mount in sharp contrast with Jewish and Pagan religious ideas. Open to juniors who have not had Bible Literature 3ab.

Three units; first semester.

104. The Life and Teachings of Paul. A survey of the Apostolic Age; Paul's life and labors; Christianity's conflict with Paganism; and a careful estimate of the teachings in Paul's letters.

Three units; second semester.

105. The Origin and Development of the Bible. History of the formation of canons, of manuscripts, literary styles of various parts, leading types of productions, and tracing of the oldest manuscripts and versions; illustrated by lantern views. *Prerequisite:* Bible Literature 1 and 2, or 3ab.

Two units; first semester.

106. The Social Institutions and Ideals of the Old Testament. A study of Semitic social customs and institutions in their relations to Old Testament interpretations, tracing of social conditions, social progress; causes making for social changes; social elements in religious rites, rituals and festivals of Hebrew Life. *Prerequisites* Bible Literature 1 and 2, or 100 and 102.

Two units; first semester.

107. The Social Institutions and Ideals of the New Testament. A study of the social customs and institutions of the Graeco-Roman and Jewish world and their bearing upon the Christian movement; a tracing of social and ethical teachings found in the New Testament and a comparison of the social ideals in the teachings of Jesus, Paul and John. *Prerequisite:* Bible Literature 3 or 105.

Two units; second semester.

108. The Poetic Literature of the Old Testament. A study of the poetic grandeur of the book of Psalms; general characteristics, forms and themes of Hebrew poetry; religious and ethical teachings in the poetic books; liturgical use of the Psalms in Israel's worship. Open to seniors and graduates. *Prerequisite:* Bible Literature 1 and 2, or 100 and 102.

Two units; second semester.

109ab. Philosophy of the Christian Religion. A critical study of a selected number of modern standard writings, representative of significant movements in modern and current Christian thought. Open to seniors and graduates.

Two units; throughout the year.

110. The Social and Ethical Teachings of Jesus. A study of the social and ethical principles involved in the teachings of Jesus and their interpretation for modern life; social responsibility, family obligations, relation to the state, care of the poor, protection of the weak, the use and abuse of wealth, treatment of criminals, remedial agencies for social ills. Open to seniors and graduates. *Prerequisite:* Bible Literature 3 or 103.

Three units; first semester.

GRADUATE COURSES

200. Introduction to the Johannine Writings. The Fourth Gospel, the Johannine Epistles, and the Apocalypse will be studied with reference to their content, character, authorship, thought and teaching. *Prerequisite:* Bible Literature 3 or 103.

Two units; first semester.

201. Introduction to the Epistle to the Hebrews and the Pastoral Epistles. The occasion, date, authorship, contents, and teachings of the Epistle to the Hebrews and the Pastoral Epistles. Open to graduates. *Prerequisite:* Bible Literature 104.

Two units; second semester.

202 The Priestly Writings of the Old Testament. The activity, function and teachings of the priestly leaders, and their significance to Hebrew life and development; the character of the Priestly literature of the Old Testament. *Prerequisite:* Bible Literature 1 and 2, or 100 and 102.

Two units; second semester.

203. The Wisdom Teachings of the Old Testament. A study of the form, character, purpose, distribution, and teachings of Israel's wisdom literature with especial attention to books of Proverbs, Ecclesiastes, and Job. *Prerequisite:* Bible Literature 1 and 2, or 100 and 102.

Two units; second semester.

204ab. Seminar: Contemporary Religious Thought. Related groups of contemporary religious problems will be selected and critically studied, taken from the most representative and recognized sources.

Two units; throughout the year.

Major: Thirty units selected with the advice of the head of the department. Of this amount eighteen units shall be taken from the Biblical Literature courses and the remaining units to complete the major may be chosen from the courses cross listed above from other departments.

Religious Education

UPPER DIVISION COURSES

100. An Introduction to the Study of Religious Education.

A general introduction to the scientific study of Religious Education. The course is designed to equip the student with an intelligent approach to those aspects of the subject which involve psychology, curriculum, method, organization and history. The use of a scientific method of procedure in studying the problems involved in the teaching of religion. Three units; first semester.

101. History of Religious Education. Survey of the historical background of modern religious education. The Raikes movement. Development of the Sunday School in America. Denominational and other overhead educational agencies of the Church. Vacation and week-day church school movements.

Three units; first semester.

110. The Psychology of Religion. Psychological factors in religious experience. Evolution of religious consciousness in the race. The psychology of religious groups. The phenomena of religious awakening and conversion. Normal religious growth. Forms and functions of religious expression. *Prerequisite:* Psychology 1.

Three units; second semester.

120. The Religious Education of Children. A study of the religious capacities and limitations of childhood. Types of training suited to different ages. Forms of religious expression in the home and the church school. Making the religious motive function in grounding the fundamental virtues. Concrete aims in the building of character and personality. *Prerequisite:* Psychology 1; Religious Education (Psychology of Religion) also recommended.

Two units; first semester.

121. The Religious Education of Adolescents. A study of religious development and problems peculiar to adolescence. The new consciousness of self and its religious implications. Religious awakenings. Establishing permanent religious habits and relationships. The grounding of a religious philosophy of life. *Prerequisite:* Psychology 1; Religious Education (Religious Education of Children) also recommended.

Two units; second semester.

122. Principles of Teaching Religion. The standardizing of method; the objectives of Religious Education; adapting subject matter to the ends sought. Types of lessons and

teaching measures of good instruction. Supervised observation and practice work in class-room method and management. *Prerequisite*: Psychology 1.

Three units; second semester.

123. Class-Room Technic for Kindergarten and Primary Classes. A survey of scientific methods of instruction applied to church schools. The use of the story in religious teaching. Visual instruction. Use of dramatic and other forms of expression. Training in worship. *Prerequisite*: Religious Education (Principles of Teaching Religion) or its equivalent in general education method.

Two units; first semester.

124. Class-Room Technic for Junior and Intermediate Classes. The application of the principles of religious teaching to later childhood and early youth. Lesson planning. Story telling. The use of expressional activities. Socialized class work and supervised study. Preparing for church membership. *Prerequisite*: Psychology 1 and at least one course on principles or method of teaching.

Two units; second semester.

125. Recreational Leadership. The place of play, recreation and social activities in the program of the church. Principles and practice of program making. Detailed study of forms of play, games and other types of recreation suited to church groups. *Prerequisite*: The required physical training of the University and not less than two courses in Religious Education.

Two units; second semester.

GRADUATE COURSES

200. The Curriculum of Moral Religious Education. The new emphasis on the subject matter of religious education. The influence of curriculum contact on individual and national ideas. Function of the religious curriculum in present day reconstruction. The religious curriculum in other nations; the religious curriculum and the future of the church. Practice in curriculum making for particular needs. *Prerequisite*: Not less than four units of English Bible, Psychology 1.

Three units; first semester.

201. Content and Organization of Lesson Materials. Principles involved; types of material for different ages of development; critical and constructive organization of the courses now most commonly employed in church schools; text-books and pamphlet forms of lessons; courses of study material for week-day and vacation schools for religion.

(Continuous with 140.) *Prerequisite:* Religious Education 140.

Three units; second semester.

210. Organization and Administration of Religious Education. The principles of educational organization and administration. Prevailing types of organization used by religious bodies. Overhead organizations. Community organization for week-day, vacation and teacher training schools of the church. *Prerequisite:* Education 101 and at least two courses in Religious Education.

Two units; first semester.

211. Organization and Supervision of a Church School. This course studies specifically the problems involved in organizing and administering the school of an individual church. The setting up of a program. Supervision of curriculum teaching. Problems of grading and promotion. Apply tests of educational efficiency. *Prerequisite:* Education 101 and at least two courses in Religious Education.

Two units; second semester.

220ab. Seminar. A study is made of current problems and movements in the field of religious education, such as week-day church schools, vacation schools, teacher training schools, home training in religion, etc. Intended for directors of religious education and pastors. *Prerequisite:* Four courses in Religious Education or an equivalent. Open on consultation.

Two units; throughout the year.

Major: Twenty hours selected with the advice of the head of the department; and prerequisite or supplemental to this, Bible 6 units; Psychology 1; general education four units.

The Church and Its Program

A major is not offered in this department. A maximum of sixteen units will be credited toward the Bachelor of Arts degree.

UPPER DIVISION COURSES

100. Spread of Christianity. The expansion of Christianity within the Roman Empire from the second to the sixth centuries; persecutions, the rivalry with other religions, the status of Christians socially and politically, the process of centralization and unification, internal developments, the growth of the Church as an institution.

Two units; first semester.

101. History of Modern Religious Development. Christianity and the Christian Church in their adaptations and adjustments to world conditions in the nineteenth and twentieth centuries; outstanding phases of teaching and service as related to modern political, social and industrial life; church life and doctrine as developed under modern conditions.

Two units.

102. History of the Protestant Movement in the United States. Transplanting the Protestant faith from Europe; distinctive modes of polity, life and thought; development of forms of organization and worship, and evangelistic, educational, benevolent and missionary agencies.

Two units.

110. Principles and Methods of Church Administration. Principles and forms of modern church organization and programs, and their successful co-ordination and operation. The relation of the pastor and his staff to general church boards and interdenominational movements.

Three units.

111. The Rural Church. The rural church and the pioneer period in America; changes in rural conditions and the decadence of the church; the awakening of interest in the rural church; the village as the center of religious life; handicaps to rural life progress; labor income of the farmer and church finance; rural attitudes and the church program; the social function of the church; case study of successful country churches.

Two units; second semester.

112. The Urban Church. Its modern development and characteristics; its field in present-day city life; its spirit and program, and co-ordination with religious and welfare agencies.

Two units.

113. The Science of Survey Making and Program Building. This is a study of the essential elements pertaining to the making of a survey, upon which may be based a program of a social, moral, educational or religious nature.

Three units; first semester.

115. Religious Problems of Latin America. A study of the religious thought of the Latin-American people, showing how the religious ideals have influenced their social, ethical, moral, and political reactions.

Three units; first semester.

120. Comparative Studies of World Religions. A study of the existing non-Christian religions with which Christianity comes in contact in its missionary enterprise—Hinduism, Buddhism, Confucianism, Taoism, Shintoism and Mohammedanism.

Three units; throughout the year.

130. History of Early Missions. A study of the nature, universality and purpose of religion, and a comparison of Christianity with the non-Christian religions. The spread of Christianity throughout the Graeco-Roman world; followed by a survey of the missionary movements which resulted in the winning of Northern Europe. Lectures, reports and readings.

Three units; second semester.

131. History of Modern Missions. A study of the expansion of Christianity since the Reformation. The development and influence of the missionary movements of Protestantism from the time of the Pietists and Moravians to the present. Lectures, assignments and papers.

Three units; second semester.

132. Development of Christianity in the Mediterranean Basin. A study of the development of Christian Missions in Southern Europe and North Africa.

Two units; both semesters.

133. Modern Missions in the Orient. A study of the history, methods, problems, results and prospects of Christian Missions in China, Korea, and Japan.

Three units; second semester.

134. The Rise of the Indian Ocean Civilization and Christian Missions in the Philippine Islands, Southeastern and Southern Asia. Its contacts with native civilizations and religions; operation of missionary organizations; results in establishment of Christianity and development of a new civilization.

Three units; first semester.

135. Principles and Methods of Missionary Administration. The underlying principles of missions are examined and the practices of the various boards in their work abroad is discussed; also a survey of the peoples to the west is made and the type of message to be presented will be outlined.

Three units; second semester.

140. Personality in Missions. A study of great missionaries; their consecration, preparation, problems, achievements and methods of work.

Two units; second semester.

141. Social Aspects of Foreign Missions. A study of the bearing on missions of the social point of view, the social problems and accomplishments of missions, the social opportunities and tasks awaiting missions, and the social function of the family, the church, and the school in Christianizing society.

Three units; second semester.

SOCIOLOGY AND SOCIAL WORK

Professor Bogardus; Associate Professor Rainwater; Assistant Professors McClean, Smith, Vincent; Instructor Fesler;
Lecturers Lickley, Bundy

LOWER DIVISION COURSES

1. Introduction to Sociology. A comprehensive study of the human groups, with illustrations drawn from concrete conditions. A course introducing the student to the whole field of sociological phenomena.

Three units; first semester; repeated the second semester.

Rainwater, Smith, Vincent

10. Industrial Sociology. An analysis of labor, the labor group, and labor problems; of necessities, amenities, and luxuries; of standards of living, the cost of living, and of budgeting the cost of living. *Prerequisite:* Sociology 1.

Three units, second semester.

Vincent

12. The Family as a Social Institution. A discussion of the family as the fundamental social unit, of the problems of the modern family and its relation to housing, health, industry, and education. A basic course for all students, similar to Sociology 150, except that this course is designed for freshmen and sophomores. *Prerequisite:* Sociology 1.

Three units; second semester.

Smith

20ab. Elementary Law for Social Workers. Same as Political Science 2ab, except that students who expect to enter the field of professional social work are regularly assigned problems in laws dealing with social work cases.

Two units; throughout the year.

McClean

50. Child Welfare. A survey of the constructive measures, both preventive and remedial, now employed in the conservation of child life, health, education, and play and in the treatment of juvenile delinquency, dependency and labor. A course especially valuable to prospective teachers, playground

supervisors and social workers. *Prerequisite:* Sociology 1.

Three units; second semester.

Rainwater

51. Urban Sociology. The social technology of urban communities; city planning, zoning, transportation; health conservation, food and water supplies, housing and communicable diseases; esthetic and social activities; civic and community centers; religious and social service agencies, surveys, exhibits; a basic course for all interested in urban improvements. *Prerequisite:* Sociology 1.

Three units; second semester.

Rainwater

70. The Play Movement. The nature of social movements. The modern social situation and the rise of the play movement. The stages in its evolution in structure and the transitions in its policies and activities. Its present status viewed as a mechanism for the socialization of play. *Prerequisite:* Sophomore standing and Sociology 1.

Two hours; first semester.

Rainwater

80. Introduction to Social Work. A study of the different types of social work, of social welfare agencies, of social work principles and methods, case work, group work and of methods of social treatment. Backgrounds of field work. *Prerequisite:* Sophomore standing and Sociology 1.

Two units; first semester; repeated the second semester.

Rainwater, Fesler

UPPER DIVISION COURSES

100. Fundamentals of Sociology. An introductory course for mature students and those who have been unable to pursue Sociology 1.

Three units; first semester; repeated the second semester.

Rainwater, Smith, Vincent

101. Fundamentals of Social Psychology. An introductory course for upper division and graduate students. Gives the psychological approach. Discusses the social phases of personality, suggestion and imitation, fashion imitation, custom imitation. Presents the social psychology of invention, leadership, the crowd, public opinion, social control, and social progress: *Prerequisite:* Junior standing and Psychology 1.

Three units; first semester; repeated the second semester.

Bogardus

103. Americanization and Immigration. A study of the nature of American traits and ideals, of the European backgrounds of immigration to the United States, of the problems facing the immigrant in becoming Americanized. Attention is given to the process of Americanizing Americans.

Two units; first semester.

Bogardus

105. Prevention of Poverty. The causes and extent of poverty. A constructive analysis of the biological, social, industrial, and political aspects of the problem of the prevention of poverty, viewed as a future achievement of social progress.

Two units; first semester.

Rainwater

110. The Sociology of Play. The scientific theories of play since Spencer. The function of play in personal and group behavior. Its relation to work and art. The age and sex characteristics, social attitudes, and seasonal variations. The drama and dance, songs and rhymes, games and sports, as social heritages; arising in social evolution and conditioning social progress.

Two hours; first semester.

Rainwater

111. The Supervision of Play. A sociological evaluation of the principles of organized group activities on playgrounds and in recreation centers, involving an examination of concrete materials selected from schedules and special programs now used in progressive communities.

Two hours; second semester.

Rainwater

112. Social Uses of Leisure Time. An inventory of current uses of after-school-and-work hours, holidays, and vacations, and an appraisal of their relation to the disorganization and reorganization of personality and society. The topics discussed involve: shortening the working day and the new leisure; commercial amusements and the exploitation of pleasure; the automobile and increased mobility; machine industry and social unrest; wholesome leisure and the permanency of democratic attitudes.

Two hours; second semester. (Not given 1922-23.)

Rainwater

113. Social Legislation. The basic theory of social legislation. The technique for securing social legislation. A consideration of social legislation now operative particularly in California, with special reference to needed measures.

Two units; first semester.

McClean

114 Social Treatment of Crime. A study of the causes of crime. Programs for the social treatment of crime including changes in the police system and criminal procedure, modifications in penal and reformatory institutions, the individualization of the delinquent for treatment, limited self-government, probation, parole, etc., will be considered with respect to their relative values for the restoration of the offender. Methods of prevention of crime.

Two units; second semester.

Smith

115. Juvenile Delinquency. The history of methods of dealing with delinquent children, the causes of delinquency

and truancy, the juvenile court, probation, the self-government idea, methods of prevention.

Two units; first semester.

Lickley, Smith

116. Child Welfare. Child problems except the problem of delinquency. Child labor, child health, child illiteracy. Legislation in behalf of child welfare. Similar to Sociology 50, except that this course is for upper division and graduate students.

Two units; second semester.

Lickley

117. Social Surveys and Research. A study of the various methods of research and investigation that can be applied to the study of social phenomena. The technique of the social survey is considered. Training is given in the analysis, organization and presentation of data. This course is of value to those who are preparing theses as well as to those interested in social work. Recommended for sociology majors.

Two units; first semester.

Smith

119. Rural Sociology. The facts and conditions of rural life, the county life movement, the rural church, the rural school, rural fraternal organizations, the Grange, the village as a social unit, rural charity and correction, rural social surveys, the socialization of rural life.

Two units; second semester.

McClellan

120. Community Organization. The social reconstruction of the neighborhood through the organization of the community instead of further multiplication of organizations within the community. The current movement for community self-help and the technic of the "community council"; its motives, membership, officers, committees, constitution, meetings, support and relation to philanthropic agencies and government.

Two units; second semester.

Rainwater

121. Public Health. A study of the public health movement. Public health needs. Hospital social service. The social work of the doctor. Community co-operation for the prevention of diseases.

Two units; second semester.

Lickley, Vincent

134. Educational Sociology. An application of the principles of sociology to the problems of education as found in the school, newspaper, and other institutions for the formation of public opinion.

Two units; first semester.

Vincent, Lickley

136. Social Welfare Activities and Agencies in Los Angeles. A course of lectures and assigned studies on the various types of social service institutions in Los Angeles. De-

signed to aid teachers in meeting the social welfare problems which arise in connection with their school work.

One unit; throughout the year. (Not given 1922-23.)

Smith, Lickley

150. The Family as a Social Institution. An analysis of the different types of domestic institutions, primitive, ancient, and modern. The family in its relation to industry, the school, the church, and the state. Modern family disorganization and disintegration. The future of the family in relation to woman's movement, the eugenics movement, and various radical theories. A basic course for social workers. Not open to students who have credit in Sociology 12.

Three units; first semester.

Smith

155. Eugenics. The following topics are discussed: origin and development of the eugenic movement; principles of human evolution; the laws of heredity; the inheritance of mental capacities; heredity and environment; social heredity; elimination of the socially unfit; increase in the marriage and birth rate of the superior; the eugenic program in relation to various social problems.

Three units; second semester.

Smith

157. Primitive Society. A study of the origin and development of social institutions. The first steps in human progress; the origins of invention, art and decoration, industrial activities and early marriage institutions. This course is designed to give the student acquaintance with the evolutionary character of social processes and to give a background for the study of modern social conditions.

Two units; second semester.

Smith

158. Race Psychology and Ethnology. The physical and mental criteria of race. Classification of races and peoples. Racial differences as seen in mental traits and divergent cultural development. The influence of physical environment, occupation, and isolation. A study of selected groups, such as the Negro, the Jew, and peoples of India. Especially valuable to those intending to do home or foreign missionary work, social settlement work, educational work among foreigners in the United States, and also for those interested in foreign commerce.

Three units; first semester.

Smith

159. Social Psychology of Leadership. The main subjects under investigation will be as follows: Heredity and leadership, environment and leadership, initiative and leadership, tests for measuring leadership ability, leadership among school children, the inventive mind, the genius, leadership in a democracy. *Prerequisite:* Sociology 101.

Two units; second semester.

Bogardus

160. Special Investigation. Special investigation of specific theoretical and field problems.

One or two units; throughout the year.

Bogardus

161. Introductory Social Group Work. Lectures on and training work in dealing with groups in settlements and recreation centers. Leadership, group psychology, schedules for analyzing groups.

Two or three units; first semester. Repeated the second.

Fesler

162. Introductory Social Case Work. Lectures on and training in social case work. The student has a choice of several types of case work in welfare institutions in Los Angeles.

Two or three units; first semester. Repeated the second semester.

Fesler

163. Intermediate Social Case Work. The students are assigned to more advanced types of case work than in Course 162. Discussion of problems. Readings.

Two or three units; first semester. Repeated the second semester.

Fesler

165. Social Work Training for Religious Leaders. Affords training to students who wish to prepare for social service in churches, as missionaries, either home or foreign, as Christian Association workers, or in similar fields. (Not given 1922-23.)

Two units; first semester.

Fesler

167. Methods of Teaching English to Immigrants. An intensive study of technique; training is given in teaching English and civics to immigrants in the adult elementary classes in Los Angeles schools.

Three units; second semester.

Lee

180. Sociological Analysis of Modern Fiction and Poetry. The leading works of fiction which deal with current social problems are critically discussed. The field of social poetry is presented. Social fiction and poetry are judged as agents of social control.

Two units; first semester.

Bundy

181. Sociological Analysis of Modern Drama. Leading Continental, English, and American drama dealing with social problems, such as capital and labor, the family, eugenics, poverty, crime, immigration will be analyzed with reference to their sociological values, and as agents of social control.

Two units; second semester.

Bundy

GRADUATE COURSES

200. History of Sociological Thought. A history of sociological thought since earliest times. A comparative study of the early social writers, and of the leading sociologists of the nineteenth century. Extensive library work.

Two units; first semester.

Bogardus

201. Contemporary Sociological Thought. The contributions of present-day sociologists are considered. Attention is given to the writings of leading social technologists.

Two units; second semester.

Bogardus

210ab. Sociology Journal Club. Reviews and criticisms of the most important articles in current sociological journals, including American, English, French, German, and Italian publications.

One unit; throughout the year.

Bogardus, Vincent

212ab. Seminar in Sociology. An advanced course, primarily for graduates and students who have completed twenty-five units of sociology credit. Stress is laid upon original research. Critiques of current leading sociological books. Oral reports and written thesis required.

Two units; throughout the year.

Bogardus

225. Seminar in Social Psychology. An advanced course for graduate students who are prepared to do original research in social psychology.

Two units; second semester.

Bogardus

240ab. Advanced Social Case Work. Practice in the field of social service as administrative assistant or special investigator in connection with a particular agency or movement.

Two or three units; throughout the year. Rainwater, Fesler.

280. Advanced Sociological Research. Highly specialized and technical sociological problems are investigated. For students who have completed Course 212.

Units to be arranged.

Bogardus

299. Methods of Teaching Sociology. The technique of teaching courses in sociology. Comparative merits of text books. Model lessons. A consideration of special teaching problems.

Two units; first semester.

Bogardus, Vincent

Major Work for Bachelor's Degree. Thirty semester units, including Sociology 1, or 100, and 101 and 117, 120.

Minor Work for Bachelor's Degree. Twelve semester units, including Sociology 1, or 100, and 101.

Minor Work for High School Teacher's Recommendation. Twelve semester units of which six semester units must be upper division and graduate work.

Minor Work for Master's Degree. Six selected units of graduate work and upper division work.

High School Teacher's Recommendation. An undergraduate "major" course, followed by at least one full year course in Sociology. The entire course should include: 1, Introduction to Sociology or 100, Fundamentals of Sociology; 101, Social Psychology; 112, Social Legislation, or an equivalent; 115, Juvenile Delinquency; 117, Social Surveys, or an equivalent; 120, Community Organization; 134, Educational Sociology; 201, Contemporary Sociological Thought; 299, Methods in Teaching Sociology.

Major Work for Master's Degree. An undergraduate "major" course, followed by at least ten units of graduate work in Sociology, and a thesis. The specific courses include: Sociology 1 or 100, 101, 105, 113, 117, 120, 150, 200, 201, 210, 212.

Journal of Applied Sociology. The results of the best research work that is done in the Department of Sociology will be printed in the Journal of Applied Sociology, which is published by the Southern California Sociological Society and the University of Southern California.

Division of Social Work. The Division of Social Work, organized by the Board of Trustees in 1920, is an integral part of the Department of Sociology and is cooperating with the leading social welfare agencies in Los Angeles. The division offers a Certificate in Social Work to students who fulfill the requirements for the Bachelor of Arts degree, and in addition certain specific requirements; a Diploma in Social Work to the students who complete the work for the degree of Master of Arts and certain specified requirements. The details concerning the Division of Social Work may be secured by writing to the Department of Sociology for a copy of the Division of Social Work bulletin.

SPANISH

Professors Schulz, de Seti n, Forrester; Assistant Professor Stilwell;
Instructors M. A. Thompson, M. M. Thompson, Johnson

LOWER DIVISION COURSES

1ab. Elementary Spanish. Careful drill in pronunciation, reading, conversation and writing. The essentials of Spanish. Not credited toward major or minor.

Five units; throughout the year. Nine sections.

Schulz, Forrester, Stilwell, Thompson, Johnson, Arkley

2ab. Intermediate Spanish. Advanced reading, grammar and composition. Collateral reading and reports. *Prerequisite:* Two years of high school Spanish or Spanish lab. Six sections.

Three units; throughout the year.

Schulz, Forrester, Stilwell, Thompson, Johnson

4ab. Oral Drill. Practice in the facile use of simple Spanish. A course strongly recommended to be taken in connection with Spanish 2ab. Five sections.

Two units; throughout the year.

Forrester, Setién, Thompson, Stilwell

5ab. Commercial Spanish. The acquirement of a business vocabulary together with a knowledge of business forms and letters. In the second semester a brief historical background of Spanish-America will be given, followed by a study of social and economic conditions, trade relations, governmental regulations, etc. The completion of this course will satisfy the language requirement for candidates for the degree of Bachelor of Science in Business Administration. *Prerequisite:* Spanish lab.

Three units; throughout the year.

Thompson

UPPER DIVISION COURSES

106ab. Spanish Novels. Selections from the representative types of the XIX and XX centuries. Collateral reading and reports.

Three units; throughout the year.

Schulz

108ab. Advanced Composition. The translation of long selections with particular reference to idiom and style. Intended primarily for junior major students.

Three units; throughout the year.

Setién

112. The Literature of the Golden Age. Reading and discussion of typical dramas of Lope de Vega, Calderón, Tirso de Molina, selections from Cervantes and other representatives of the Siglo de Oro. This course alternates with Spanish 119. Not given in 1922-23.

Setién

113. Modern and Contemporary Prose Literature. Reading and discussion of representative modern prose writers. This course alternates with Spanish 119. Not given in 1922-23.

Setién

114ab. Spanish Conversation. Based on text-book and magazine articles.

Two units; throughout the year.

Setién

115ab. Current Events. Discussions in Spanish of current events with special reference to Spain and Spanish-America.

Two units; throughout the year.

Setién

116. Public Speaking and Oral Interpretation. Study and practice in Spanish in the various forms of public address, and in oral interpretation. Intended for seniors and graduates in the departments both of Commerce and of Religious Education who are contemplating going into the Spanish-American field. *Prerequisites:* Spanish 2ab, 114ab, 115ab, and Public Speaking 5ab.

Three units; second semester.

Teeter

119. The History of Spanish Literature. A rapid survey of the history of Spanish Literature with the interpretations of selections from representative authors, with special reference to poetry.

Two units; throughout the year.

Schulz

120. Spanish Syntax. An advanced study of Spanish Syntax based on Bello Cuervo. A prerequisite of the Teachers' Course and intended primarily for senior major students.

Two units; first semester.

Schulz

GRADUATE COURSES

219. Old Spanish. A study of the development of the Spanish language in the early periods of its history. *Prerequisite:* The equivalent of at least two years high school Latin or Latin 1ab.

Two units; second semester.

Setién

221. Seminar. The work of the Spanish Seminar is the critical investigation of some selected author or period. In 1922-23 the subject will be some phase of contemporary literature.

Two units; throughout the year.

Setién

223. Castilian Phonetics. A study of the conclusions of Araujo, Josselyn, Colton, and Navarro Tomás.

Two units; first semester.

Setién

299. Teachers' Course. A study of the methods of presenting the four-year high school course in Spanish.

Two units; second semester.

Johnson

Undergraduate Major. Twenty-six semester units, including Courses 2ab, 106ab, 108ab, 112, 113, 119, 120, and exclusive of 1ab.

Undergraduate Minor. Twelve semester units, six of which must be in upper division courses and exclusive of 1ab.

High School Teachers' Recommendation. An undergraduate major, followed by a full year course in Spanish, approved by the head of the department, and the departmental Teacher's Course, Spanish 299, if not taken in undergraduate study. Teachers with two or more years of experience may be exempt from a part of the graduate requirements.

SPEECH

Professor Yoder; Associate Professor Blanks; Assistant Professors Wadsworth, Hubbard; Instructors Nichols, Voorhees, Fink

LOWER DIVISION COURSES

1ab. Fundamental Technique of Reading. Consideration of the natural vocal principles governing the intelligent interpretation of the printed page.

Two units; throughout the year. Voorhees, Fink

2ab. Voice and Diction. This course is devoted to the freeing of the vocal instrument. Consideration of the problems of breath control, relaxation, resonance, inflectional agility, distinct articulation and correct pronunciation.

One unit; throughout the year. Wadsworth

5ab. Elementary Public Speaking. Consideration of the various forms of public address, with platform exercise throughout the course. Rapid formulation of thought and its effective presentation are required.

Two units; throughout the year.

Blanks, Hubbard, Fink, Nichols

10ab. Educational Dramatics. Interpretation of the drama from the acting viewpoint including life study, dramatic law and stage technique.

Two units; throughout the year.

Voorhees

12ab. Advanced Public Speaking. A practical course in the construction and delivery of speech materials. Designed to meet the needs of those who have specific problems and conditions to prepare for, and will set forth concretely the simplest and most fundamental methods that lead to a satisfactory presentation of thought. *Prerequisite:* 1ab or 5ab, or equivalent.

Two units; throughout the year.

Blanks, Fink

UPPER DIVISION COURSES

101ab. Art of Interpretation. Intensive study of the various forms of poetry; selections from Coleridge, Wordsworth, Keats, Shelley, Tennyson, Rosetti, and Browning.

Two units; throughout the year.

Yoder

103ab. Forms of Public Address. A continuation of Course 12ab with added emphasis on the technical training in the composition and delivery of original speeches. Drill in all forms of forensic address. Study of current movements with speeches related thereto. Lectures upon the technique of oratory with close study of great orations. All interested in oratorical contests are advised to take this course. *Prerequisite:* 12 or its equivalent.

Two units; throughout the year.

Blanks

104ab. Advanced Dramatics. Advanced study in the technique of acting from the point of both actor and director. Practical work in play direction, scenic investiture, lighting, make-up, costume, etc. *Prerequisite:* 10.

Two units; throughout the year.

Hubbard

105ab. Argumentation and Debate. The course is designed to give the student greater power in reasoning and to make him alert in the oral formation of his constructive and destructive judgment on the leading questions of the day.

Two units; throughout the year.

Nichols

106ab. Advanced Debate. This course elaborates the principles of argumentation and debate, applies them to questions of the day and gives constant practical drill in the art of debate.

Two units; throughout the year.

Nichols

COURSES IN ENGINEERING AND ARCHITECTURE

In offering these courses the aim of the University of Southern California is to provide, in addition to a thorough training in mathematics, physics and the basic principles of the various branches, a broad general education which will qualify the engineer to take his proper place in civil and social affairs. To this end students are expected to take an active part in college activities and to receive training in public debate and speaking, to become proficient in the use of the English language and cosmopolitan in both thought and action.

The elective studies provided for in the following schedules are subject to the approval of the head of the department in which the student's major work is done, and, in general, should not be technical subjects in that department.

ARCHITECTURE

The University offers a four-year general course leading to the degree of B.S. in architecture. In the curriculum the essentials of a liberal education are provided with as much specific training in freehand drawing, design, history of architecture, and construction, as a four-year course will permit. This plan of study recognizes that architecture is essentially a fine art, the practice of which necessitates a broad knowledge of structural and building equipment engineering, and that design is the most essential subject in preparing students for the profession.

The department is equipped with well lighted drafting rooms and a library of architectural books, lantern slides, and general reference material. There is an ample number of casts for the work in freehand drawing. All subjects in construction are given in connection with the department of civil engineering, and a structural option may be selected at the end of the second year by those who desire to specialize in architectural engineering.

Los Angeles with its many building activities provides examples of design and construction which form a most valuable supplement to the work in the class room. At least one summer vacation in an architect's office or the equivalent is required for graduation.

CIVIL ENGINEERING

The great industrial development of recent years in every part of the United States has created a large demand for

trained civil engineers. The course in Civil Engineering has been made broad in order to meet this demand by providing a sufficient foundation for the wide range of practice now included under Civil Engineering.

The course is designed to give a practical as well as a theoretical training. Nearly as much time is spent in the drawing room, laboratory and field as in the lecture room.

A very large amount of important engineering work is continually going on in the vicinity of Los Angeles. The proximity of harbors, mines, irrigation and water supply projects, several transcontinental railroad terminals, and extensive electric power plants and railway systems, offers a diversity of excellent examples of engineering construction. Students in this department, accompanied by instructors, are required to inspect much of this work and to present written reports on what they have seen.

ELECTRICAL AND MECHANICAL ENGINEERING

The courses in Electrical Engineering are designed to fit young men to engage in the operation and production of electrical apparatus, and also in the application of electricity to the Arts and Sciences.

During the Freshman and Sophomore years there is laid a broad foundation, consisting of Physics, Mechanics, Chemistry, Surveying, and Drawing. During the Junior and Senior years special studies in electricity and its applications are pursued.

The work of the engineering laboratories is co-ordinate with that of the lecture and class room, and aims to give a practical knowledge of electrical measurements and the handling of electrical machinery.

Southern California, in its present state of rapid development, offers exceptional opportunity to the hydraulic and electrical engineer. The work of the University is excellently supplemented by the large amount of work under construction. The engineers and superintendents in charge of this work have been very courteous in aiding the classes on their various trips of inspection. The various power and electric plants in and about Los Angeles afford examples of electric development of high-tension power transmission not surpassed by those of any other city in the United States. Various excursions are made to these plants, which are explained in detail by the superintendent engineers.

Mechanical and Electrical Engineering are closely allied, and the first two years of the courses are identical. During the Junior and Senior years of the Mechanical Engineering course the development of power by means of the various types of heat engines, and the distribution and utilization of this power, are studied. The application of power to railway,

marine or automobile work offers opportunity for detailed study of Mechanical Engineering, and for the application of the fundamental principles studied during the earlier part of the course.

As indicated in the following outlines, twenty-four weeks' approved employment is required as a prerequisite for graduation in either Electrical or Mechanical Engineering. This requirement is designed to give the student some idea of commercial operations and to broaden his view, particularly in regard to labor conditions, by actual contact with the commercial world. Such employment is of great and lasting benefit to the student, and makes him of greater value to his employer.

ENGINEERING CHEMISTRY

This course is planned to produce highly trained chemists who are equipped to enter the field of research in industrial chemistry, or to develop chemical processes, or manage chemical industries.

The course requires the completion of 136 units and leads to the degree of Bachelor of Science in Engineering Chemistry. The curriculum of the first two years comprises the standard preliminary work of engineering courses. The curriculum of the last two years includes further work in chemistry up to a minimum of a total of 50 units in chemistry, and approved electives from certain other related departments of the University. The work of the last two years may be so chosen as to allow specializing in any desired field; as in Oil; Manufacturing Chemistry; Sanitation; Industrial Research; General Analytical, Testing, and Consulting Work; or in the fields of Engineering.

A final requirement for graduation is the presentation of an acceptable thesis covering work on some industrial problem, and representing at least four units of work done during the senior year. This work will be carried on, in general, in cooperation with some industrial concern in Southern California, and will be in the field of work in which the student desires to specialize.

MINING ENGINEERING

There is offered at present only the first two years' work in Mining Engineering with the expectation that the other two years may be added in the near future. It is the purpose to give familiarity with the general foundation sciences of engineering, and at the same time have the student gain some insight into practical mining engineering.

COURSES IN ARCHITECTURE

Professors Weatherhead, Lawrence; Instructor Baldwin

LOWER DIVISION COURSES

1ab. Freehand Drawing. Drawing in charcoal from geometrical solids, involving the accurate representation of form in line and in light and shade. This is followed by simple architectural forms drawn from the cast.

One unit; throughout the year.

2. Freehand Drawing. A continuation of Course 1. Architectural forms and the figure drawn from cast. Out of door sketching.

One unit; throughout the year.

3. Pen and Pencil Rendering. Practice in rendering architectural subjects in pen and ink and in pencil.

Two units; second semester.

5ab. History of Architecture. A course tracing the development of the art of building through the ancient, classic and mediaeval periods, with an analytical study of the characteristics of each succeeding style. Illustrated lectures.

Two units; throughout the year.

8ab. Elements of Architecture. A series of rendered problems involving a study of the classic orders and elements of composition, and simple architectural design.

Two units; throughout the year.

15ab. Architectural Design. A series of designs and sketch problems arranged to develop as rapidly as possible a true sense of architectural proportion, scale, and fitness, and to insure an ever-increasing creative power and technical skill. *Prerequisite:* Architecture 8ab.

Three units; throughout the year.

UPPER DIVISION COURSES

100ab. Building Equipment Engineering. A course including the general principles and methods of sanitation, heating, ventilation and lighting buildings.

Two units; throughout the year.

104ab. Modelling. Modelling in clay from architectural ornament and parts of the figure.

One unit; throughout the year.

106ab. History of Architecture. A continuation of Course 5. A critical study of the best examples of Renaissance and modern architecture. Illustrated by lantern slides.

Two units; throughout the year.

107ab. History of Ornament. Illustrated lectures on the history and characteristics of the different styles, accompanied by historical drawings in the most important periods.
Prerequisite: Architecture 5ab and 106ab.

Two units; throughout the year.

116ab. Architectural Design. A continuation of Course 15. More advanced problems in planning and composition.

Four units; throughout the year.

117ab. Architectural Design. A continuation of Course 116.

Six units; throughout the year.

120. Architectural Composition. A series of illustrated lectures on the theory of composition, supplementing the courses in Architectural Design.

One unit; first semester.

125. Professional Relations. A study of the relation between the architect, the client and the contractor. Professional ethics.

One unit; second semester.

COURSES IN CIVIL ENGINEERING

Professor Lawrence; Associate Professor Cook

LOWER DIVISION COURSES

1ab. Surveying. Recitations and lectures on the theory and practice of plane surveying. The course includes the use and care of instruments; methods of procedure and of keeping notes for land, city, and mining surveys; instructions in computation and platting of field notes. Text, Breed and Hosmer's "Principles and Practice of Surveying," Vol. I.
Prerequisite: A course in plane trigonometry.

Two units; throughout the year.

Cook

2ab. Surveying Field Work. The practical adjustment of surveying instruments; the proper method of keeping clear field notes, and the working of field problems, with chain, tape, level, plane table, transit, compass, etc. The work in the drawing room consists of platting the field notes and making profiles and maps. Six hours. C. E. 1 to be taken concurrently. Text, "Pence and Ketchum's Field Manual."

Two units; throughout the year.

Cook

3a. Higher Surveying. Recitations and lectures on the theory and practice of the more advanced surveying prob-

lems, including hydrographic surveying, and mapping. Text, Breed and Hosmer, Vol. II. *Prerequisite:* C. E. 1 and 2.

Two units; second semester.

Cook

31. Higher Surveying. Field work. Topographical surveys with plane table and stadia, city surveys, mine surveys, measurement of base lines and triangulation systems, determination of meridian and latitude. *Prerequisite:* C. E. 1 and 2. Six hours' field work.

Two units.

Cook

13. Materials of Construction. A study of the manufacture and properties of stones, cements, concretes, timber, iron, steel, etc., with special attention to the determination of the safe working stresses. Text, Mills' "Materials of Construction."

Three units; first semester.

UPPER DIVISION COURSES

104. Railroad Engineering. A course including the theory of curves, switches, and sidings; the making of reconnaissances and preliminary and location surveys; the computation of earthwork and determination of structures; and the making of final estimates of cost. Text, "Allen's Railroad Curves and Earthwork." *Prerequisite:* C. E. 1 and 2.

Two units; first semester.

Cook

105ab. Railroad Engineering, Field and Office Work. Practice in laying out curves, making a complete survey for a short line of railway, and doing the office work. C. E. 104 must be taken concurrently. Text, "Allen's Railroad Curves and Earthwork."

Two units; throughout the year.

Cook

106. Economics of Railroad Location. The fundamental principles of economical location, construction and betterment surveys; a discussion of yard and terminal design; the study of the permanent right of way in regard to its relation to maintenance and operation. Text, "Raymond's Railroad Engineering." *Prerequisite:* C. E. 104.

Two units; second semester.

Cook

107ab. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics, including the determination of center of gravity, moment of inertia, centrifugal force, etc. Text, "Poorman's Applied Mechanics." *Prerequisite:* Mathematics 7 and 108.

Two units; second semester.

Lawrence

108ab. Strength of Materials. A mathematical course in the resistance and elasticity of materials, stresses and strains, shearing, flexure, beams, columns, and shafts. Course 107

must be taken concurrently. Text, Slocum and Hancock's "Strength of Materials," and Shepard's "Problems in Strength of Materials."

Two units, first semester; three units, second semester.

Lawrence

109. Hydraulics. Hydraulic pressure, strength of pipes, flow of liquids through pipes and orifices and over weirs, losses of head, flow of water in open channels, dams of masonry and earth, hydraulic motors and machinery. Text, "Slocum's Hydraulics." *Prerequisite:* C. E. 107.

Three units; first semester.

Lawrence

110. Irrigation Engineering. Diversion, conveyance, and application of water for irrigation. Design of reservoirs, dams and diversion work. Text, Newell and Murphy's "Irrigation Engineering." *Prerequisite:* C. E. 109.

One unit; second semester.

111. Water Supply. The determination of the quantity and quality of supply, water purification and conservation, design of a system. Text, Turneure and Russell's "Public Water Supply." *Prerequisite:* C. E. 109.

Two units; second semester.

Lawrence

112. Sanitary Engineering. The drainage of buildings, treatment and disposal of sewage, sewer system for cities. Text, "Sewerage"—Metcalf & Eddy. *Prerequisite:* C. E. 109.

Two units; first semester.

Lawrence

115. Graphical Statics. The graphical determination of the stresses in engineering structures. C. E. 107 must be taken concurrently. Lectures and drafting.

One unit; first semester.

Lawrence

116. Stresses in Framed Structures and Arches. The analytical and graphical methods applied to determining stresses in roof and bridge trusses and masonry arches. Text, Turneure's "Modern Framed Structures," Vol. I. *Prerequisite:* C. E. 107 and 115.

Three units; second semester.

Lawrence

117. Engineering Laboratory. The testing of engineering materials. Work done at the Osborne Testing Laboratory (by special arrangement). *Prerequisite:* Course 108.

Three laboratory hours, one unit; second semester.

118ab. Structural Design. The theory for and practice of making complete designs for steel bridges, roofs and other structures. Lectures, drawing, and computing. Text, "Mod-

ern Framed Structures," Vol. III. *Prerequisite*: Courses 108 and 116.

One hour lecture, six hours drafting, two units. Lawrence

119. Highway Engineering. Roads and streets of broken stone, paved and oil roads, the location of new roads. Text, "Construction of Roads and Pavements," Agg.

Two units; second semester. Lawrence

121ab. Reinforced Concrete. The theory, design, construction and estimates of concrete and reinforced concrete structures, including buildings, foundations, retaining walls, tunnels, culverts, dams. Text, Hool's "Reinforced Concrete Construction," Vols. I and II. *Prerequisite*: C. E. 108.

Three hours lecture, three units; throughout the year. Cook

122. Contracts and Specifications. A synopsis of the law of contracts as applied to engineering construction and a study of typical contracts and specifications. The course includes riparian rights, boundary lines, survey descriptions, etc. Text, Tucker's "Contracts in Engineering."

Two units; second semester. Lawrence

123. Advanced Engineering Design. A study of some special engineering problem by the student. The subject must be approved by the professor in charge of the department of Civil Engineering and by the professor who would have immediate direction of the work proposed, not later than November 1st of the senior year. It must be completed and submitted by June 1st of the same year.

Three units; second semester. Lawrence

GRADUATE COURSES

218. Structural Engineering. The theory and design of continuous girders, swing, cantilever, suspension of metallic arch bridges. Text, "Modern Frame Structures," Vol. II.

Two units. Lawrence

221. Advanced Reinforced Concrete. The theory and design of reinforced concrete bridges, arches, tunnels and chimneys. Text, Hool's "Reinforced Construction," Vol. III.

Two units. Cook

224. Theory and Method of Least Squares. The application of the laws of errors to the adjustment of observations. Text, Weld's "Theory of Errors and Least Squares."

Two units; one semester. Lawrence

COURSES IN ELECTRICAL ENGINEERING

Professor ———

UPPER DIVISION COURSES

101a. Electrical Circuits and Machinery I. Development of the fundamental laws governing the flow of continuous and alternating currents; resistance, reactance, impedance and power; series and parallel circuits; magnetism; electromotive force and its production; construction and operating characteristics of electrical machinery, instruments and apparatus. Required of Electrical, Mechanical and Civil Engineering students. *Prerequisites:* Physics 6 and Calculus.

Five units; first semester.

101b. Electrical Circuits and Machinery II. Continuation of E. E. 101a, dealing particularly with electric motors and their applications. Junior. Required of Electrical Engineering students. *Prerequisite:* E. E. 101a.

Three units; second semester.

102aL. Electrical Laboratory. Laboratory work for the experimental verification of the fundamental laws of electrical circuits; characteristic curves of generators and motors; determination of losses, efficiencies, etc. Required of Electrical and Mechanical Engineering students.

Two units; first semester.

102bL. Electrical Laboratory. Continuation of E. E. 102a. Required of Electrical Engineering students.

Two units; second semester.

103. Electrical Machine Design I. Design of a continuous current dynamo, to include all calculations and working drawings of the principal parts. Required of all Electrical Engineering students. *Prerequisite:* E. E. 101a.

Three units; second semester.

104. Electrical Machine Design II. Design of alternating current dynamos and transformers. Credit depends on work done. Senior. Not required for graduation. *Prerequisite:* E. E. 103.

First or second semester.

105. Electric Power Transmission. Electrical and mechanical problems incident to the design, construction and operation of electric power transmission lines. Required of Electrical Engineering students. *Prerequisite:* E. E. 101a.

Two units; first semester.

106. Excursions. Power houses and manufacturing plants in and near Los Angeles are visited. No credit. Both semesters, Junior and Senior. Required of Electrical Engineering students.

107. Transients. Non-harmonic waves and their analysis; propagation of waves in space and over wires; dielectric and inductive storage of energy; transient phenomena incident to load adjustments, short circuit surges, etc. Required of Electrical Engineering students. *Prerequisite:* E. E. 101a. Three units; first semester.

108. Electrical Measurements. Theory, construction and use of electrical instruments for commercial and exact measurements. Senior. Required of Electrical Engineering students. *Prerequisite:* E. E. 101a. Three units; first semester.

109. Electric Railways. Application of the electric motor to railway work; traction mechanics; traction graphics; speed-time curves; types of cars and their construction; control systems, etc. Senior. Required of Electrical Engineering students. *Prerequisite:* E. E. 101a. Two units; second semester.

110. Telephones. An elementary course on the theory and operation of the telephone, and of telephone exchanges. Required of Electrical Engineering students. *Prerequisite:* E. E. 107. Three credits; second semester.

111. Electrical Engineering Mathematics. Application of the principles of mathematics to the solution of electrical engineering problems. Not required. *Prerequisites:* E. E. 101a and Calculus. Two units; first semester.

112. Electrical Engineering of Power Plants. Selection, installation and operation of the electrical equipment of power plants; plant efficiencies, cost of power, etc. Required of Electrical and of Electrical Engineering students. *Prerequisite:* E. E. 101a. Two units; second semester.

113. Theory of Electricity. Advanced mathematical investigation of electrical phenomena; conduction in gases; valve actions. Credits depend on quantity and quality of work done. Elective.

COURSES IN MECHANICAL ENGINEERING

Professor _____

LOWER DIVISION COURSES

1ab. Mechanism. Machine elements, power transmission, levers, cams, link work, velocity and motion diagrams; straight-line and quick-return motions; gearing, etc. Sophomores. Required of Electrical and Mechanical Engineering students. *Prerequisite:* Physics 2 and Trigonometry. Two units; throughout the year.

UPPER DIVISION COURSES

101a. Heat Power Engineering. Fundamental principles of heat engines, boilers and gas producers; construction and operation; efficiencies and methods of testing. Required of Mechanical and Electrical Engineering students. *Prerequisites:* Physics 2 and 4, and Calculus. Five units; first semester.

101b. Heat Engines. Principles of heat engines, their construction and operation. Junior. Required of Mechanical Engineers. *Prerequisite:* M. E. 101a. Three units; second semester.

102aL. Mechanical Laboratory. Calibration of steam gauges, indicators and planimeters; valve setting; indicated and brake horsepower; mechanical efficiency and steam consumption. Required of Mechanical and Electrical Engineering students. Two units; first semester.

102bL. Mechanical Laboratory. Continuation of M. E. 102a. Required of Mechanical Engineering students. Two units; second semester.

103. Thermodynamics. Fundamental laws of thermodynamics and their application to heat engineering; gases, saturated and superheated vapors. Required of Mechanical Engineering students. *Prerequisites:* Physics 4 and Calculus. Three units; first semester.

104. Elementary Machine Design. Stresses in and proportions of simple machine parts; development and use of empirical and other formulas used in machine design. Required of Mechanical and Electrical Engineering students. *Prerequisites:* Physics 2 and M. E. 1. Two units; first semester.

105. Advanced Machine Design. Continuation of M. E. 104. Design of an assigned machine and preparation of work-

ing drawings. Required of Mechanical Engineering students. *Prerequisites*: M. E. 104, C. E. 107, and C. E. 108.

Three units; first semester.

106. Excursions. Power houses and manufacturing plants in and near Los Angeles are visited. No credit; both semesters, Junior and Senior. Required of Mechanical Engineering students.

107. Valve Gears. Valve gear mechanisms; Bilgram and Zeuner diagrams. Required of Mechanical Engineering students. *Prerequisite*: M. E. 101a.

Two units; second semester.

108. Heating and Ventilation. Fundamental principles of heating and ventilation; direct and indirect systems; hot-air, hot-water and steam systems; quantity and quality of air. Required of Mechanical Engineering students. *Prerequisite*: M. E. 103.

Two units; first semester.

109. Railway Mechanical Engineering. Locomotive construction and operation; air brake systems; and other mechanical equipment of railways. Required of Mechanical Engineering students. *Prerequisite*: M. E. 101a.

One and one-half units; first half of first semester.

110. Marine Engineering. Marine engines and boilers; other mechanical equipment of ships. Required of Mechanical Engineering students. *Prerequisite*: M. E. 101.

One and one-half credits; second half of first semester.

111. Refrigeration. Fundamental principles of cooling systems, and their application to ice-making and cold storage. Senior. Required of Mechanical Engineering students. *Prerequisite*: M. E. 103.

One unit; second semester.

112. Mechanical Engineering of Power Plants. Selection, installation and operation of the mechanical equipment of power plants; plant efficiency; cost of power, etc. Required of Mechanical and Electrical Engineering students. *Prerequisite*: M. E. 101a.

Three units; second semester.

113. Oil Engines. Diesel and other engines using the heavier fuel oils; fundamental principles, construction and operating characteristics; efficiencies and application.

REQUIRED COURSES IN THE DEPARTMENT OF ENGINEERING

Architecture

First Year

Mathematics 4, 5, and 6; Physics 2, 3, 6, and 7; English lab; Drawing 6 and 8; Architecture 1 and 8ab.

Second Year

Mathematics 7 and 108; Modern Language; Civil Engineering 13; Drawing 9; Art 23; Architecture 2, 3, 5ab, and 15.

Third Year

Civil Engineering 107, 108, 115, 116, and 122; Art 150; Architecture 106ab, 107ab, and 116.

Fourth Year

Civil Engineering 118 and 121; Architecture 100ab, 104, 117, 120, and 125.

Civil Engineering

First Year

Mathematics 4, 5, and 6; Physics 2, 3, 6, and 7; English lab; Drawing lab; Civil Engineering lab and 2ab. Summer—Approved employment, 8 weeks.

Second Year

Mathematics 7 and 108; Physics 4 and 8; Chemistry 2, 2L, 3, and 3L; Civil Engineering 3, 3L, and 13; Drawing 4; Electives 7 units.* Summer—Approved employment, 8 weeks.

Third Year

Civil Engineering 104, 105ab, 106, 107ab, 108ab, 109, 110, 111, 115, 116, and 118a; Electives 4 units.* Summer—Approved employment, 8 weeks.

Fourth Year

Civil Engineering 112, 117, 118b, 119, 121ab, 122, 123; Electrical Engineering 101a; Engineering Seminar; Electives 9 units.*

Electrical Engineering

First Year

Mathematics 4, 5 and 6; Chemistry 2, 2L, 3, and 3L; Physics 4, 5, 8, and 9; English lab; Drawing lab. Summer—Approved employment, 8 weeks.

Second Year

Mathematics 7 and 108; Physics 2, 3, 6, and 7; Civil Engineering 1ab, 2ab, and 13; Drawing 5 and 7; Mechanical Engineering 1; Economics, History or English. Summer—Approved employment, 8 weeks.

Third Year

Civil Engineering 107ab, 108ab, 109, 115, and 118; Electrical Engineering 101ab, 102ab, 103, and 106; Mechanical Engineering 104; Economics, Accounting. Summer—Approved employment, 8 weeks.

Fourth Year

Electrical Engineering 105, 107, 108, 109, 110, 112, and 106; Civil Engineering 122; Mechanical Engineering 101a, 102a, and 112; Physics 112 and 113; Elective 3 units.*

Mechanical Engineering**First and Second Years**

The courses are the same as Electrical Engineering.

Third Year

Civil Engineering 107ab, 108ab, 109, 115, and 118; Mechanical Engineering 101ab, 102ab, 103, 104, and 107; Excursions. Summer—Approved employment, 8 weeks.

Fourth Year

Mechanical Engineering 105, 108, 109, 110, 111, and 112; Electrical Engineering 101a, 102a, and 112; Civil Engineering 122; Economics, Accounting; Electives* 6 units; Excursions.

Engineering Chemistry**First Year**

Mathematics 4, 5, and 6; English 1ab; Chemistry 2, 2L, 3, 3L; German 2a and 4; Drawing 1ab.

Second Year

Mathematics 7 and 108; Physics 2, 3, 4, 5, 6, 7, 8, and 9; Chemistry 4ab; Economics 1ab; Geology 2; Civil Engineering 13.

Third Year

Chemistry 107ab, 107abL, 113, 115, 115L, 112L or 114L; Civil Engineering 107a and 108ab; Electives 8 units.

* Electives, subject to the approval of the head of the department.

Fourth Year

Electrical Engineering 101a; Chemistry 116ab, 116abL, 109ab, 109abL, and 225ab; Electives 9 units.

Students without entrance German will take German 1ab (5 units) throughout the first year; German 2a and 4, the second year, and Economics lab the third year.

Mining Engineering

First Year

Mathematics 4, 5, and 6; English 1ab; Chemistry 2, 2L, 3, and 3L; Drawing 1ab; Physics 4 and 8.

Second Year

Mathematics 7 and 108; Physics 2, 3, 6, and 7; Civil Engineering 1ab and 2ab; Chemistry 4aL and 114L; Geology 1, 3, 4, 113, and 115; Drawing 5.

SUMMER SESSION

ANNOUNCEMENT

The seventeenth annual Summer Session of the College of Liberal Arts of the University of Southern California will be held at the College of Liberal Arts on University Avenue and at the Venice Marine Station, from July 1 to August 12, 1922.

Saturday and Monday, July 1 and 3, will be the regular registration days at the Registrar's office, and as far as possible students are asked to register on these days.

Admission Requirements

The admission requirements to the Summer Session are, for all except those enrolled as auditors, uniform with the admission requirements to the regular sessions of the College of Liberal Arts.

Credits

Courses totaling six units in college credits are regarded as constituting full work for the Summer Session. Upon application, made in advance, to the Director, permission may, in certain cases, be given to carry one or two additional units. In such cases it is understood that no more than six units of credits will be allowed unless all the work is completed with not less than a C grade.

All classes meet for lecture or recitation five times a week unless otherwise indicated.

NOTE: The University reserves the right to withdraw any courses for which there is not sufficient demand to warrant the formation of classes.

Fees and Expenses

Registration Fee\$25.00

The payment of the Registration Fee entitles a student to enroll in as many of the courses as he is qualified to carry.

Laboratory Fees—

Art—Still Life, Course No. 50.....\$ 4.00

Biology, each course requiring laboratory work.... 4.00

Chemistry, each laboratory course of 2 or 3 units.. 10.00

(A breakage deposit of \$5.00 is also required for each course. This is returned, less breakage, at the end of the course.)

Electrical Engineering:

One unit of laboratory work.....	\$ 4.00
Each additional unit of laboratory work.....	2.00
Home Economics, Courses 160 and 190b.....	1.50
Home Economics, Course No. 11.....	5.00
Physical Education, Course No. 130.....	10.00

Physics:

One unit of laboratory work.....	4.00
Each additional unit of laboratory work.....	2.00

Fees are payable in advance and are not refundable. The University reserves the right to change, without notice, any of the rates printed in this bulletin.

Summer Session Announcement

The announcement of the Summer Session is ready for distribution. It contains full information concerning the work offered and may be obtained by application to the Director of the Summer Session.

THE UNIVERSITY HIGH SCHOOL

General Statement

The University High School is maintained by the University of Southern California as an integral part of the School of Education, and in the history of public school education in California holds the unique distinction of being the first regularly constituted high school in organic union with the university graduate work. For the School of Education it serves as a laboratory for the solution of educational problems, and during the period of its operation the School of Education has thus been able to train and recommend for certification more than 450 teachers for service in the secondary schools of the state.

It is the aim of the University High School to provide the best possible opportunities for secondary education, and under a standard curriculum both conservative and cultural its students are prepared for entrance to the various colleges of the University. The curriculum also provides a liberal high school education for those who may not be able to attend higher institutions of learning. Sponsored by the great Methodist organization, it is the peculiar mission of the University High School to foster and maintain a distinctly Christian atmosphere and further the vital interests of church and state.

Government of the School

1. In relation to the University, the school is under the general control of the Dean of the School of Education.

2. The Principal is charged with immediate responsibility for: (1) the administration of the affairs of the school; (2) the proper direction of the work of teachers and pupils.

3. The Vice-Principal (1) arranges details of student relations and the social activities of the school; and (2) is responsible for routine matters in connection with the work of teachers and pupils.

4. The Supervisors of Instruction assist the cadet-teachers by: (1) presenting comprehensive and constructive plans for organization of subject-matter; (2) giving general direction in the development of special methods; and (3) demonstrating certain principles of teaching through class room instruction.

5. The instructors (cadet-teachers) hold the degree of Bachelor of Arts or its equivalent, and devote themselves to the teaching of the academic subjects in which they have specialized.

6. The Principal, Instructors, and Special Supervisors have joint control of student teaching.

CALENDAR. 1922-1923

September 13-15	Registration for the first semester
September 18	Instruction begins
November 30-December 2.	Thanksgiving recess
December 21-January 2..	Christmas recess
January 31-February 6...	Mid-year examinations
February 12	Instruction begins
March 26-April 2.....	Spring recess
May 30	Memorial Day recess
June 12-18	Final examinations
June 19	Commencement

General Organization

The University High School is located on the campus of the College of Liberal Arts at West Thirty-fifth Street and University Avenue. The campus can be reached conveniently from the center of the city by either the University or the West Jefferson Street cars.

The school uses for recitation purposes rooms on the second floor of Old College, and the library, museum, laboratories, gymnasium, and athletic equipment of the college are at the disposal of the High School students.

The School Year. The school year consists of thirty-six weeks and is divided in two terms or semesters. Recesses are indicated on the High School Calendar.

The School Day. The school day begins at 8:00 a. m. and continues until 5 p. m., with an intermission of 70 minutes for luncheon.

Report Cards. Report cards are issued at the expiration of each six weeks, the third or semester report being entered on the permanent record cards in the office. Students are rated upon Scholarship, Attendance and Deportment or School Citizenship.

The School Period. Periods are 50 minutes in length, with 10-minute intervals between periods.

Assembly. Two periods a week are used for general assembly and chapel exercises.

Physical Education. All students of the High School under twenty-one years of age are required to take two periods per week of physical education, unless excused by the medical examiner. A penalty of one-half unit is added to the graduation requirements for each semester's failure in required gymnasium or assembly.

Athletics. The University High School also provides opportunities for participation in various sports such as football, basketball, track, baseball, and tennis. These sports are supervised by competent directors.

Social Activities. The only social organizations recognized by the school authorities are the four regular classes and the student body itself. Secret societies have no official standing, and membership of a pupil of the High School in a secret society may be deemed sufficient cause for his removal from the school.

Enrollment. Enrollment in the University High School is limited to 150, which makes possible classes of moderate size and considerable personal attention for the individual student.

Admission. Applicants for entrance to University High School must be able to show preparation equivalent to that required for entrance to regular state high schools and to give reference for good moral character.

Applications should be addressed to The Principal of the High School, University of Southern California, Los Angeles.

REGISTRATION

On or before the appointed registration days in September and February, each student must register at the office of the Principal. After consultation with representatives of the registration committee concerning the courses of study, each student will receive a study-card and an enrollment-card, upon which will be entered the subjects desired for the semester. The study-card will be for the guidance of the student. The enrollment card must be presented to the Treasurer of the University when the registration fee is paid.

REQUIREMENTS FOR GRADUATION

The following major groups of courses are offered in the High School:

- | | |
|------------|-------------------------------------|
| Group I. | English. |
| Group II. | Mathematics and Mechanical Drawing. |
| Group III. | History and Social Science. |
| Group IV. | Physical and Biological Sciences. |
| Group V. | Foreign Language. |
| | (a) French. |
| | (b) Greek. |
| | (c) Latin. |
| | (d) Spanish. |

The Principal and Vice-Principal will endeavor to organize for each student a definite four-year course of study suited

to the needs and aims of the individual student. The following considerations will govern the selection of the student's course:

- (1) Requirements for graduation from the University High School.
- (2) Requirements for entrance to the college for which the student is preparing.
- (3) The principle of distribution: The student will be required to form some acquaintance with the major fields of knowledge as represented in the five groups above.
- (4) Sequential study: The student will be required to include in his course two majors of at least three units each—a major consisting of three years of study in one of the five groups listed above.

A diploma of graduation will be granted to each student who completes fifteen units of the courses described on the following pages; provided, that the fifteen units include two majors as described above, and the following required subjects:

English	2 units
A Foreign Language.....	2 units
A Laboratory Science.....	1 unit
Algebra and Plane Geometry.....	2 units
United States History and Civics.....	1 unit

and provided that the student has been in attendance at the University High School for at least two semesters preceding the completion of the work described above.

FEEES AND EXPENSES

Registration Fee, a semester or any part of a semester, payable in advance.....	\$10.00
(The registration fee is not refundable.)	
Diploma Fee, payable 30 days before graduation.....	5.00
Laboratory Fees, a semester:	
Biology (each course requiring laboratory work) ..	4.00
Chemistry	7.00
Physics	4.00

(Students in Chemistry will deposit a breakage fee of \$7.00 a semester, which, the cost of the broken goods having been deducted, will be refunded at the close of the year.)

The University reserves the right to change any of the rates or discounts printed in this year book without notice.

PROGRAM OF STUDIES

Freshman—Ninth Year

	Hrs.
English 9.....	5
Algebra 9.....	5
Latin 9.....	5
French 9.....	5
Spanish 9.....	5
History 9 (Ancient).....	5
Gen. Science	5
F. H. Draw. (Oral).....	7
Oral English 9.....	2
Gymnasium	2

Junior—Eleventh Year

	Hrs.
English 11.....	5
Pl. Geom. 11.....	5
French 9.....	5
Spanish 9.....	5
Latin 9.....	5
History 11 (English).....	5
Chemistry 11.....	7
Mech. Draw.....	7
Public Speaking.....	4
Sten. and Type.....	10
Gymnasium	2

Sophomore—Tenth Year

	Hrs.
English 10.....	5
Algebra 10.....	5
Latin 10.....	5
French 10.....	5
Spanish 10.....	5
History 10 (M. & M.).....	5
Botany 10.....	7
Zoology 10.....	7
F. H. Draw.....	7
Public Speaking	4
Gymnasium	2

Senior—Twelfth Year

	Hrs.
English 12.....	5
Trig.; Sol. Geom.....	3
French 10.....	5
Spanish 10.....	5
Latin 10.....	5
History 12 (U. S. and Civics).....	5
Econ. and Soc.....	5
Physics 12.....	7
Mech. Draw.....	7
Public Speaking.....	4
Sten. and Type.....	10
Gymnasium	2



UNIVERSITY OF ILLINOIS-URBANA



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